NRO-125-14

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193
(703) 583-3800 Fax (703) 583-3821
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Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Thomas A. Faha
Regional Director

August 7, 2014

Mr. Edward H. Baine
VP Power Generation System Operations
Virginia Electric and Power Company
5000 Dominion Boulevard
Glen Allen, VA 23060

FIPS/Plant ID: 51-109-0040
Location: Louisa County
Registration No.: 40808
Permit No.: NRO40808

Dear Mr. Baine:

Attached is a renewal Title V permit to operate your affected source pursuant to Chapter 80, Article 3, of the Virginia Regulations for the Control and Abatement of Air Pollution.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all conditions carefully.

In evaluating the application and arriving at a final decision to issue this permit, the Department deemed the application complete on June 11, 2013 and solicited written public comments by placing a newspaper advertisement in the "The Virginian" newspaper on April 24, 2014. The thirty-day comment period (provided for in 9 VAC 5-80-670) expired on May 27, 2014. The Environmental Protection Agency (EPA) was also provided forty-five days to review and comment on the proposed renewal Title V permit. The EPA review period began on April 25, 2014 and ended on June 9, 2014. The only comments received were from Dominion Virginia Power – Gordonsville and were incorporated in this permit.

This approval to operate does not relieve Dominion Virginia Power – Gordonsville Power Station of the responsibility to comply with all other local, state, and federal permit regulations.

Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition

with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests.

Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

Mr. David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please contact Gary Beeson at (703) 583-3969.

Sincerely,

James B. LaFratta
Regional Air Permit Manager

TAF/JBL/HGB/14-125-NRO

Attachment: Permit

cc: Ms. Cathy Taylor – Director Electric Environmental Services, Dominion Resource Services, Inc. (electronic copy)
Rebekah J. Remick – Dominion Virginia Power (electronic copy)
Elizabeth A. Willoughby – Dominion Virginia Power (electronic copy)
Director, OAPP (electronic file submission)
Manager, Data Analysis (electronic file submission)
Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III (electronic copy)
Manager/Inspector, Air Compliance (electronic copy)

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Federal Operating Permit
Article 3

This permit is based upon Federal Clean Air Act acid rain permitting requirements of Title IV, federal operating permit requirements of Title V, and Chapter 80, Article 3 and Chapter 140 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act and 9 VAC 5-80-360 through 9 VAC 5-80-700, and 9 VAC 5-140-10 through 9 VAC 5-140-3880 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Virginia Electric and Power Company
Affected Source Name:	Dominion Virginia Power – Gordonsville Power Station
Affected Source Location:	819 Hill Road Gordonsville, Virginia 22942
Registration Number:	40808
Permit Number:	NRO40808

This permit includes the following programs:

Federally Enforceable Requirements – Clean Air Act
Federally Enforceable Requirements – Title IV Acid Rain
Federally Enforceable Requirements – CAIR

Appendix A – The Phase II Acid Rain Permit Application (5 Pages)
Appendix B – CAIR Permit Application (10 Pages)
Appendix C – Start-up, Shutdown, LLE mode and Transient Operations
Appendix D – Data Substitution Emission Factors
Appendix E – Applicability Determination Index (ADI)-Water to Fuel Exemption

January 1, 2014
Title IV Effective Date

August 7, 2014
Title V Effective Date

December 31, 2018
Title V and Title IV Expiration Date

Thomas A. Faha
Regional Director

August 7, 2014
Signature Date

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Affected Source Information

Permittee
Virginia Electric and Power Company
DBA: Dominion Virginia Power – Gordonsville Power Station
5000 Dominion Boulevard
Glen Allen, Virginia 23060

Responsible Official
Mr. Edward H. Baine
Vice President Power Generation System Operations
5000 Dominion Boulevard
Glen Allen, Virginia 23060

Acid Rain Designated Representative
Mr. Edward H. Baine
Vice President Power Generation System Operations
USEPA ATS-AAR ID – 606670

Clean Air Interstate Rule (CAIR) Designated Representative
Mr. Edward H. Baine
Vice President Power Generation System Operations
USEPA ATS-AAR ID – 606670

Affected Source
Dominion Virginia Power – Gordonsville Power Station
819 Hill Road
Gordonsville, Virginia 22942

Contact Person
Ms. Cathy C. Taylor
Director, Electric Environmental Services
(804) 273-2929

County-Plant Identification Number: 51 – 109 – 0040
ORIS Code: 54844

Affected Source Description: NAICS 221112 – SIC 4911- Electrical Services.

The Dominion Virginia Power – Gordonsville Power Station (GPS) is a cogeneration combined cycle power plant that produces electricity for sale to Virginia Dominion Electric Power Company. The affected source consists of: two GE Frame 7EA combustion turbines (I-A and II-A); two supplementary firing duct burners (II-B and II-B); two steam turbines and electricity generators; an emergency diesel generator set (IV); a fuel oil storage tank (TK-101); a diesel engine driven fire suppression water pump (DP-1); and various insignificant emission units as specified in this permit. The primary fuel for the combustion turbines and the associated duct burners is natural gas and the backup fuel is distillate fuel oil. The diesel engine driven fire suppression water pump is fueled by numbers 1 or 2 fuel oil. The emergency diesel generator must operate on ultra low sulfur diesel fuel.

The combustion turbines are each subject to NSPS Subpart GG and the duct burners are each subject to NSPS Subpart Db. The emergency diesel generator set is subject to NSPS Subpart IIII and MACT ZZZZ and the fire suppression water pump diesel engine is subject to MACT ZZZZ.

The facility is a Title V major source due to its potential to emit of NO_X, SO_2 and CO emissions. This source is located in an attainment area or unclassified area for all criteria pollutants.

Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity [1]	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
I-A	1	GE Frame 7EA Stationary Combustion Turbine (CT) firing natural gas fuel and backup distillate oil fuel. Date of Construction: February 1, 1993.	Each rated at 1335 x 10^6 Btu/hr on natural gas [2] Or 1191 x 10^6 Btu/hr on numbers 1 or 2 distillate fuel oil [2] (Heat Input) --- Each rated at 1154 x 10^6 Btu/hr on natural gas [3] Or 1026 x 10^6 Btu/hr on numbers 1 or 2 distillate fuel oil [3] (Heat Input)	Dry Low NO_X ($DLNO_X$) combustors when burning natural gas. Water injection when burning distillate fuel oil. Selective Catalytic Reduction (SCR) for NO_X emissions, manufactured by Mitsubishi Heavy Industries, Ltd. Date of Construction: February 1, 1993.	201	NO_X	January 31, 2013
I-B	1	Heat Recovery Steam Generator (HRSG) with Supplementary Duct Burner (DB). Date of Construction: February 1, 1993.	174.7 MMBtu/hr burning natural gas. 166.6 MMBtu/hr burning distillate fuel oil.	SCR for NO_X emissions, manufactured by Mitsubishi Heavy Industries, Ltd. Date of Construction: February 1, 1993.	201	NO_X	January 31, 2013

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment (cont.)							
II-A	2	GE Frame 7EA Stationary Combustion Turbine (CT) firing natural gas fuel and backup distillate oil fuel. Date of Construction: February 1, 1993.	Each rated at 1335 x 10^6 Btu/hr on natural gas [2] Or 1191 x 10^6 Btu/hr on numbers 1 or 2 distillate fuel oil [2] (Heat Input) --- Each rated at 1154 x 10^6 Btu/hr on natural gas [3] Or 1026 x 10^6 Btu/hr on numbers 1 or 2 distillate fuel oil [3] (Heat Input)	$DLNO_X$ combustors when burning natural gas. Water injection when burning distillate fuel oil. SCR for NO_X emissions, manufactured by Mitsubishi Heavy Industries, Ltd. Date of Construction: February 1, 1993.	202	NO_X	January 31, 2013
II-B	2	Heat Recovery Steam Generator (HRSG) with Supplementary Duct Burner (DB). Date of Construction: February 1, 1993.	174.7 MMBtu/hr burning natural gas. 166.6 MMBtu/hr burning distillate fuel oil.	SCR for NO_X emissions, manufactured by Mitsubishi Heavy Industries, Ltd. Date of Construction: February 1, 1993.	202	NO_X	January 31, 2013

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment (cont.)							
IV	4	Caterpillar C175-16 diesel engine generator set (2013)	4423 hp 3000 kW_e	Nitrogen oxides (as NO_2) emissions from the diesel engine generator set shall be controlled by electronic fuel injection, turbocharged engine and after-cooler.		NO_X	January 13, 2013
DP-1		Diesel Engine Driven Fire Suppression Water Pump (1993)	231 hp diesel engine				September 25, 1992
Storage Tanks							
TK-101	--	No. 1 and 2 distillate fuel oil tank	5,000,000 gallons	--	--	--	--

[1] The Size/Rated Capacity is provided for informational purposes only, and is not an applicable requirement.
[2] When operated at 100% base load at an ambient temperature of 0 °F
[3] When operated at 100% base load at an ambient temperature of 59 °F

Annual operation of the facility is based on conditions at 0 °F for 25% of the operational year and at 59 °F for 75% of the operational year.

Fuel Burning Equipment – Combustion turbines (CT) and heat recovery steam generator (HRSG) with supplementary duct burners (DB)

Limitations:

1. **Fuel Burning Equipment Requirements – CT/HRSG with DB – NO_X Emission Controls** – Nitrogen oxide (as NO_2) emissions from each CT/HRSG DB (ID#s I-A, I-B, and II-A, II-B) shall be controlled by selective catalytic reduction (SCR). In addition to the SCR control, Nitrogen oxides from each CT shall be controlled by the utilization of a low NO_X burner design when firing natural gas or by water injection when firing numbers 1 and 2 distillate fuel oil and during gas power augmentation (as defined in (Appendix C). The CTs (ID#s I-A and II-A), HRSG DBs (ID#s I-B and II-B), and the SCR units shall be provided with adequate access for inspection.
(9 VAC 5-80-490 B & C and Condition 3 of the July 10, 2014 NSR Permit)

2. **Fuel Burning Equipment Requirements – CT/HRSG with DB – NO_X Emission Controls – SCR Operation** – Except during CT start-up, including low load emergency mode (LLE) and shut-down/transient conditions (as defined in Appendix A of this permit, the SCR unit shall be operating any time a CT is burning fuel. The SCR unit may operate during CT start-up (including LLE) and transient conditions. A normal CT start-up begins when a flame is detected and ends one hour after ammonia injection begins. A normal CT start-up (excluding LLE) shall not exceed 6 hours. During CT shut-down, the permittee shall discontinue use of the SCR (discontinue ammonia injection) when the catalyst bed temperature drops below the predetermined temperature level, but not more than 3 hours prior to the time at which the fuel feed to the CT is discontinued.
(9 VAC 5-80-490 B & C and Condition 4 of the July 10, 2014 NSR Permit)

3. **Fuel Burning Equipment Requirements – CT/HRSG with DB – SO_2 Emission Controls** – Sulfur dioxide (SO_2) emissions from each CT/HRSG with DB shall be controlled by the use of very low sulfur fuels (as defined in 40 CFR 60.41.b).
(9 VAC 5-80-490 B & C and Condition 5 of the July 10, 2014 NSR Permit)

4. **Fuel Burning Equipment Requirements – CT/HRSG with DB – PM Emission Controls** – Particulate matter (PM) emissions from each CT/HRSG with DB shall be controlled by the use of clean burning fuels.
(9 VAC 5-80-490 B & C and Condition 6 of the July 10, 2014 NSR Permit)

5. **Fuel Burning Equipment Requirements – CT/HRSG with DB – CO & VOC Emission Controls** – Carbon monoxide (CO) and volatile organic compound (VOC) emissions from each CT/HRSG with DB shall be controlled by the use of good combustion operating practices.
(9 VAC 5-80-490 B & C and Condition 7 of the July 10, 2014 NSR Permit)

6. **Fuel Burning Equipment Requirements CT/HRSG with DB – Fuel Limitations** – The approved fuels for the CT/HRSG with DB are natural gas and number 1 and 2 distillate fuel oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 and 2 under the American Society for Testing and Materials, ASTM D396 (or other approved applicable ASTM method, incorporated in 40 CFR 60 by reference) "Standard Specification for Fuel Oils". A change in fuel may require a permit to modify and operate. Records of all

fuel supplier certifications shall be available for inspection and shall be current for the most recent five years.
(9 VAC 5-80-490 B & C and Condition 14 of the July 10, 2014 NSR Permit)

7. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Fuel Limitations** – The maximum sulfur content of the natural gas burned in each CT/HRSG with DB shall not exceed 20 grains/100 dscf.

   The natural gas burned in each CT/HRSG with DB shall not exceed an annual weighted average sulfur content of 0.5 grains/100 dscf, calculated daily on a rolling consecutive 365 day period. The annual weighted average sulfur content of the natural gas fuel burned is calculated as follows:

$$\frac{\sum_{t=1}^{365} x_t \frac{S\ (grains\ sulfur)}{100\ (dscf)} \times z_t\ (dscf\ gas)}{\sum_{t=1}^{365} z_t\ (dscf\ gas)}$$

   where:

   t = numerical day within a consecutive 365 day period;
   X_t = the sulfur content of the natural gas sample collected during day t. If a measurement of X_t was not performed during day t, assume X_t is equivalent to the most recent measurement of X_t prior to the beginning of day t;
   Z_t = the quantity of natural gas burned within a consecutive 365 day period and between the time period of (t-1) and t.

   Compliance shall be demonstrated through monitoring of the sulfur content of the natural gas in accordance with the monitoring plan contained in this permit.
   (9 VAC 5-80-490 B & C and Condition 15 of the July 10, 2014 NSR Permit)

8. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Fuel Limitations** – The maximum as-fired sulfur content of the numbers 1 and 2 distillate fuel oil burned in each CT/HRSG with DB shall not exceed 0.05 percent by weight. Compliance shall be demonstrated through fuel supplier certification of sulfur content or through sampling, testing, and certification of as-fired numbers 1 and 2 distillate fuel oil sulfur content. The numbers 1 and 2 distillate oil sulfur analysis may be performed by the permittee, a service contractor retained by the permittee, or other Department of Environmental Quality (DEQ) approved agency.
   (9 VAC 5-80-490 B & C and Condition 16 of the July 10, 2014 NSR Permit)

9. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Fuel Limitations** –

   a. The measured HHV of the natural gas fuel burned in each CT/HRSG with DB shall be greater than or equal to 967 Btu/scf.

   b. The measured HHV of the numbers 1 and 2 distillate fuel oil burned in each CT/HRSG with DB shall be greater than or equal to 132,000 Btu/gallon.
   (9 VAC 5-80-490 B & C and Condition 17 of the July 10, 2014 NSR Permit)

10. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Fuel Limitations** – The total amount of the natural gas consumed by the affected source, consisting of the two CT/HRSG units shall not exceed 1.33113×10^{10} scf per consecutive 365 day period.
(9 VAC 5-80-490 B & C and Condition 18 of the July 10, 2014 NSR Permit)

11. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Fuel Limitations** – The permittee shall monitor the HHV of the natural gas burned in the CT/HRSG with DB in accordance with a method and frequency set forth in 40 CFR 75, Appendix D Section 2.3.4. The HHV of the natural gas shall be determined at least once per month.
(9 VAC 5-80-490 B & C and Condition 50 of the July 10, 2014 NSR Permit)

12. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Fuel Limitations**

    a. The permittee shall test the as-fired numbers 1 and 2 distillate fuel oil for sulfur content and HHV on each occasion that fuel is transferred to the fuel storage tank from any other source. Numbers 1 and 2 distillate fuel oil sulfur content shall be determined using ASTM D2880 (or other approved applicable ASTM method, incorporated in 40 CFR 60 by reference) or incorporated by reference (9 VAC 5-50-410 Subpart GG, 40 CFR 60.335). The numbers 1 and 2 distillate fuel oil sulfur analysis may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or other DEQ approved agency.

    b. The requirement to monitor the nitrogen content of the numbers 1 and 2 distillate fuel oil being fired in each CT on each occasion that fuel is transferred to the fuel oil storage tank is waived, provided the CT NO_X continuous emission monitoring system (CEMS) required by this permit are maintained in accordance with 40 CFR Part 75 and is fully compliant with 40 CFR 75 and Part 75 data substitution procedures.

    c. The permittee shall submit an initial plan to the Regional Air Compliance Manager of the DEQs Northern Regional Office (NRO) that specifies the manner in which on-site numbers 1 and 2 distillate fuel oil will be tested to determine the sulfur content and HHV of the distillate fuel oil. Initial test methods and changes to the test methods used by the permittee to determine sulfur content and HHV of the numbers 1 and 2 distillate fuel oil shall be submitted to and approved by the Regional Air Compliance Manager of the DEQs NRO prior to burning distillate oil tested by the proposed methods.

    Records of the numbers 1 and 2 distillate fuel oil sulfur content and HHV shall be available on site for inspection by the DEQ. They shall be kept on file for the most current five year period.
    (9 VAC 5-80-490 B & C, 40 CFR 60 Subpart GG, 40 CFR 75, and Condition 51 of the July 10, 2014 NSR Permit)

13. **Fuel Burning Equipment Requirements – HRSG with DB – Fuel Limitations** – The total heat input rate of all HRSG with DB shall not exceed 249.9 million Btu per hour, when fired simultaneously or separately. The total heat input rate shall be determined hourly.
(9 VAC 5-80-490 B & C and Condition 22 of the July 10, 2014 NSR Permit)

14. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Fuel Limitations** – A CT and its associated HRSG with DB shall burn the same type fuel.
(9 VAC 5-80-490 B & C and Condition 23 of the July 10, 2014 NSR Permit)

15. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Fuel Limitations** – A continuous monitoring system shall be installed to measure the hourly consumption of each fuel (in scf/hour and gallons/hour) by each CT and each HRSG with DB. A continuous monitoring system shall be installed to measure the hourly consumption of diesel fuel (in gallons/hour) by the diesel engine-generator set.
(9 VAC 5-80-490 B & C, 40 CFR 60.334, and Condition 48 of the July 10, 2014 NSR Permit)

16. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Fuel Limitations** – The permittee shall monitor the sulfur content of the natural gas as-fired in each CT/HRSG with DB.

    a. Analysis for fuel sulfur content of the natural gas shall be conducted, as referenced in 40 CFR 60.334(h) using one of the approved ASTM reference methods, or an approved alternative method, for the measurement of sulfur in gaseous fuels. The reference methods are: ASTM D1072; ASTM D3031; ASTM D3246; and ASTM D4084 (or other approved applicable ASTM method, incorporated in 40 CFR 60 by reference) or incorporated by reference (9 VAC 5-50-410 Subpart GG, 40 CFR 60.335). ASTM D5504 is an approved alternative method to determine sulfur content in gaseous fuels.

    b. Sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with the sulfur content permit condition, then sulfur monitoring shall be conducted once per quarter for six quarters.

    c. If requested by the permittee, the DEQ may limit the frequency of natural gas sulfur monitoring required by 40 CFR 60 Subpart GG to a minimum of twice per annum provided that the monitoring required in item b. above demonstrates that the sulfur content of the natural gas fuel shows little variability and the monitoring demonstrates compliance with the annual natural gas sulfur content limitation specified in this permit. At a minimum, two of the gas samples collected each year for sulfur monitoring shall be separated by a forty-five day period.

    d. Should any sulfur analysis required in items b. or c. above indicate noncompliance, the owner or operator shall notify the Regional Air Compliance Manager of the DEQs NRO of such emissions and this custom schedule shall be re-examined by the DEQ. While the sulfur monitoring schedule is being re-examined, sulfur monitoring shall be conducted at a minimum rate of once during a rolling period of time consisting of seven (7) unit operating days. For the purposes of this permit condition, a unit operating day is any day during which any CT burns natural gas.

    e. If there is a change in fuel supply, the permittee must notify the Regional Air Compliance Manager of the DEQs NRO of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period while this custom schedule is being re-examined.

    All of the preceding records shall be available on site for inspection by DEQ personnel. They shall be kept on file for the most recent five year period.
    (9 VAC 5-80-490 B & C, 40 CFR 60 Subpart GG, and Condition 49 of the July 10, 2014 NSR Permit)

17. **Fuel Burning Equipment Requirements – CT Emission Limitations** – Criteria pollutant emissions from the operation (excluding start-up (including LLE), shut-down, and transient operation)* of each CT and its associated HRSG DB shall not exceed the limits specified below:

Natural Gas Operation

Nitrogen Oxides** (NO_2)	9 ppmvd at 15% O_2 per unit (1-hour average)	(9 VAC 5-50-260)
Carbon Monoxide	36 lbs/hr/unit	(9 VAC 5-50-260)

Numbers 1 and 2 Distillate Fuel Oil

Nitrogen Oxides** (as NO_2)	12 ppmvd at 15% O_2 per unit (1-hour average)	(9 VAC 5-50-260)
Sulfur Dioxide	59 lbs/hr/unit	(9 VAC 5-50-260)
Carbon Monoxide	48 lbs/hr/unit	(9 VAC 5-50-260)

* Start-up, shutdown, LLE, and transient operations of the combustion turbines are defined in Appendix C of this permit.

** Nitrogen oxides concentration (ppm) must be met at all times except during start-up (including LLE), shut-down, and transient operation, or malfunction.

Compliance with the CT hourly emission limits for NO_X and CO shall be demonstrated by CEMS. The CEMS measurement shall be a one-hour average for each CT operating hour. Compliance with the SO_2 hourly emission limit while burning numbers 1 and 2 distillate fuel oil shall be demonstrated by maintaining records of fuel oil certifications for all numbers 1 and 2 distillate fuel oil burned and by the following calculation: quantity of numbers 1 and 2 distillate fuel oil consumed per hour x sulfur content (as SO_2) of the distillate fuel oil (lb SO_2 / lb fuel oil).

The following emission rates are derived from estimated overall emission contributions and are included for inventory purposes only:

Natural Gas

PM-10	4.3×10^{-3} lbs/10^6 Btu	5 lbs/hr/unit
Sulfur Dioxide	1.8×10^{-3} lbs/10^6 Btu	2.1 lbs/hr/unit (annual average)
Nitrogen Oxides (as NO_2)	3.3×10^{-2} lbs/10^6 Btu	44 lbs/hr/unit
Carbon Monoxide	2.8×10^{-2} lbs/10^6 Btu	
Volatile Organic Compounds	11 lbs/hr/unit	

Numbers 1 and 2 Distillate Fuel Oil

PM-10	9.7×10^{-3} lbs/10^6 Btu	10 lbs/hr/unit
Nitrogen Oxides (as NO_2)	4.9×10^{-2} lbs/10^6 Btu	58 lbs/hr/unit
Sulfur Dioxide	5.0×10^{-2} lbs/10^6 Btu	
Carbon Monoxide	4.2×10^{-2} lbs/10^6 Btu	
Volatile Organic Compounds	11 lbs/hr/unit	
Lead	6.0×10^{-3} lbs/hr/unit	

(9 VAC 5-80-490 B & C and Condition 29 of the July 10, 2014 NSR Permit)

18. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Emission Limitations –** Criteria pollutant emissions from the operation (excluding start-up (including LLE), shutdown and transient operation)* of each CT/HRSG with DB shall not exceed the limits the limits specified below:

Natural Gas

Nitrogen Oxides** (as NO_2)	9 ppmvd at 15% O_2 per unit (1-hour average)
Carbon Monoxide	57 lbs/hr/unit

Numbers 1 and 2 Distillate Fuel Oil

Nitrogen Oxides* (as NO_2)	12 ppmvd at 15% O_2* (1-hour average)
Sulfur Dioxide	68 lbs/hr/unit
Carbon Monoxide	68 lbs/hr/unit

* Start-up, shutdown, LLE, and transient operations of the combustion turbines are defined in Appendix C of this permit.

** Nitrogen oxides concentration (ppmvd) must be met at all times except during CT start-up (including LLE), shutdown, transient operation, or malfunction.

Compliance with CT/HRSG with DB hourly emission limits for NO_X and CO shall be demonstrated by CEMS. The CEMS measurement shall be a one-hour average for each CT /HRSG with DB operating hour. Compliance with the SO_2 hourly emission limit while

burning numbers 1 and 2 distillate fuel oil shall be demonstrated by maintaining records of distillate fuel oil certifications for all numbers 1 and 2 distillate fuel oil burned and by the following calculation: quantity of numbers 1 and 2 distillate fuel oil consumed per hour x sulfur content (as SO_2) of the distillate fuel oil (lb SO_2 / lb fuel oil).

The following emission rates are derived from estimated overall emission contributions and are included for inventory purposes only:

Natural Gas

PM-10	6.0 x 10^{-3} lbs/10^6 Btu	8 lbs/hr/unit
Sulfur Dioxide	1.7 x 10^{-3} lbs/10^6 Btu	2.3 lbs/hr/unit (annual average)
Nitrogen Oxides (as NO_2)	3.3 x 10^{-2} lbs/10^6 Btu	50 lbs/hr/unit
Carbon Monoxide	4.0 x 10^{-2} lbs/10^6 Btu	
Volatile Organic Compounds	22 lbs/hr/unit	

Numbers 1 and 2 Distillate Fuel Oil

PM-10	1.1 x 10^{-2} lbs/10^6 Btu	13 lbs/hr/unit
Sulfur Dioxide	5.0 x 10^{-2} lbs/10^6 Btu	
Nitrogen Oxides (as NO_2)	4.8 x 10^{-2} lbs/10^6 Btu	66 lbs/hr/unit
Carbon Monoxide	5.2 x 10^{-2} lbs/10^6 Btu	
Volatile Organic Compounds	21 lbs/hr/unit	
Lead	6.8 x 10^{-3} lbs/hr/unit	

(9 VAC 5-80-490 B & C and Condition 30 of the July 10, 2014 NSR Permit)

19. **Fuel Burning Equipment Requirements – HRSG with DB – Emission Limitations –** Criteria pollutant emissions from the operation of each HRSG with DB (excluding CT startup (including LLE), and CT transient operating modes) shall be determined as specified in 40 CFR 60 Subpart Db (40 CFR 60.40.b). The emission rate from each HRSG with DB shall not exceed the limitations specified below:

Natural Gas and Numbers 1 and 2 Distillate Fuel Oil

Nitrogen Oxides* (as NO_2)	0.2 lbs/10^6 Btu (30 day rolling average)

*The nitrogen oxides (as NO_2) emission rate (lbs/10^6 Btu) limitations apply at all times including HRSG with DB startup (including LLE), shutdown, or malfunction. The emission limit is based on the heat input to the HRSG with DB.

Compliance with the HRSG with DB NO_X emission limitation shall be demonstrated on a 30-day rolling average basis using a 40 CFR 75 compliant NO_X CEMS, except that the permittee shall use missing data substitution procedures in the record keeping section of this permit instead of the missing data substitution procedures identified in 40 CFR 75. A 40 CFR 75 compliant O_2 CEMS shall be co-located with the NO_X CEMS. The NO_X CEMS shall be operated in accordance with the requirements of 40 CFR 60.48.b in addition to 40 CFR 75. The sampling site shall be located at the outlet of the HRSG with DB downstream of the SCR control device. The NO_X emission rate at the outlet of the HRSG with DB and downstream of the SCR control device shall constitute the NO_X emission rate from the duct burner of the combined cycle system.

The following emission rates are derived from estimated overall emission contributions and are included for inventory purposes only:

Natural Gas

Nitrogen Oxides (as NO_2)	35 lbs/hr/unit

Numbers 1 and 2 Distillate Fuel Oil

Nitrogen Oxides (as NO_2)	33 lbs/hr/unit

(9 VAC 5-80-490 B & C and Condition 31 of the July 10, 2014 NSR Permit)

20. **Fuel Burning Equipment - CT/HRSG with DB – Limitations – Visible Emissions** – Visible emissions from each CT exhaust stack shall not exceed ten (10) percent opacity, except during one six-minute period per hour in which opacity shall not exceed twenty-seven (27) percent. The opacity standard shall apply at all times except during periods of startup (including LLE), shutdown, malfunction, or transient operations. When a visible emissions evaluation (VEE) is required, details of the VEE shall be arranged with the Regional Air Compliance Manager of the DEQs NRO.
(9 VAC 5-80-490 B & C and Condition 37 of the July 10, 2014 NSR Permit)

Monitoring:

21. **Fuel Burning Equipment - CT/HRSG with DB – Continuous Emission Monitoring Systems (CEMS)** – A Continuous Emission Monitoring Systems (CEMS) shall be installed to measure and record the emissions of NO_X (as NO_2) from each CT/HRSG with DB exhaust stack. The NO_X CEMS shall be located downstream of the selective catalytic reduction system. An O_2 CEMS shall be co-located with each NO_X CEMS. The data shall be reduced to one hour averages. The requirements of this condition shall be followed for any replacement CEMS.

    a. The CEMS shall be installed, calibrated, maintained, audited, and operated in accordance with performance specifications and test procedures identified in 40 CFR 75. The 40 CFR 75 compliant NO_X and O_2 CEMS shall be used to monitor NO_X emission

from each CT/HRSG with DB throughout the year. The quality assurance of data generated by the CEMS shall be demonstrated by implementing or exceeding the minimum requirements for CEMS quality assurance as defined in 40 CFR 75, Appendix B, and as may be required by this permit.

b. The Regional Air Compliance Manager of the DEQs NRO shall be notified in writing at least thirty days prior to the demonstration of CEMS performance. Subsequent similar notification requirements are to be submitted to the Regional Air Compliance Manager of the DEQs NRO.

(9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-50-410, 40 CFR 60 Subpart Db, 40 CFR 60.48.b and Condition 40 of July 10, 2014 NSR Permit)

22. **Fuel Burning Equipment - CT/HRSG with DB – Continuous Emission Monitoring Systems (CEMS)** – A CEMS shall be installed to measure and record the emissions of CO from each CT/HRSG with DB exhaust stack. The CO CEMS shall be located downstream of the HRSG with DB. The requirements of this condition shall be followed for any replacement CEMS.

    a. Except where otherwise indicated in this permit, the CEMS shall be installed, calibrated, maintained, audited and operated in accordance with performance specifications and test procedures identified in 40 CFR 60.13 and 40 CFR Part 60, Appendix B. The quality assurance of data generated by the CEMS shall be demonstrated by implementing or exceeding the minimum requirements for CEMS quality assurance as defined in 40 CFR 60, Appendix F, except where more stringent requirements are specified by this permit. The data shall be reduced to one-hour averages.

    b. The Regional Air Compliance Manager of the DEQs NRO shall be notified in writing at least thirty days prior to the demonstration of CEMS performance. Subsequent similar notification requirements are to be submitted to the Regional Air Compliance Manager of the DEQs NRO.

    (9 VAC 5-80-490 B & C and Condition 41 of the July 10, 2014 NSR Permit)

23. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Continuous Emission Monitoring Systems (CEMS)** – The NO_X, CO and oxygen (O_2) continuous emission monitors required by this permit, the continuous monitoring data, and the quality assurance data shall be used to determine compliance with the NO_X and CO emission limits and/or relevant emission standards. Each monitor is subject to such data capture requirements and/or quality assurance requirements as specified in this permit and as may be deemed appropriate by the Board. (For each CO CEMS use 40 CFR 60.13 and 40 CFR 60, Appendix B and F. For each NO_X and O_2 CEMS use 40 CFR 75 Appendix A and Appendix B)

    (9 VAC 5-80-110, 9 VAC 5-50-40, 9 VAC 5-50-410, and Condition 39 of July 10, 2014 NSR Permit)

24. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Continuous Emission Monitoring System (CEMS) Data Substitution During Start-up and Full Speed No Load (FSNL)** – When CEMS data is missing while a CT/HRSG with DB is operating in start-up or full speed no load (FSNL) operating modes (see Appendix C), the missing CEMS data shall be substituted with the pollutant's time-averaged emission rate found in Appendix D of this

permit for the purpose of demonstrating compliance with affected source-wide annual emission limitations.

When a CT is operating in start-up mode (including LLE), SO_2 emissions shall be calculated by conducting a material balance on sulfur; VOC emissions and PM-10 emissions shall be calculated by multiplying the pollutant's time-averaged emission rate (found in Appendix D of this permit) by the number of hours of CT start-up operation (including LLE). These emissions shall be used in the calculation to demonstrate compliance with the affected source-wide annual emission limitations.
(9 VAC 5-80-490 and Condition 32 from the July 10, 2014 NSR Permit)

25. **Fuel Burning Equipment Requirements – CT/HRSG with DB – CEMS – Missing CEMS Data – Combustion Turbine Emission Rate Inventory – During LLE Operation** – When CEMS data is missing and a CT is operating in LLE mode (as defined in Appendix C), the missing CEMS data shall be substituted with the pollutant's time-averaged emission rate found in Appendix D of this permit for the purpose of demonstrating compliance with affected source-wide annual emission limitations.

    When a CT is operating in LLE mode, SO_2 emissions shall be calculated by conducting a material balance on sulfur; VOC emissions and PM-10 emissions shall be calculated by multiplying the pollutant's time-averaged emission rate found in Appendix D of this permit by the number of hours of CT LLE mode operation. These emissions shall be used in the calculation to demonstrate compliance with the affected source-wide annual emission limitations.
    (9 VAC 5-80-490 B & C and Condition 33 of the July 10, 2014 NSR Permit)

26. **Fuel Burning Equipment Requirements – CT/HRSG with DB – CEMS – Missing CEMS Data** – When CEMS data is missing and a CT is operating in transient operating mode (which includes CT shutdown, fuel switching and power augmentation operating modes as defined in Appendix C), the missing CEMS data shall be substituted with the pollutant's time-averaged emission rate found in Appendix D of this permit for the purpose of demonstrating compliance with affected source-wide annual emission limitations.

    When a CT is operating in transient mode, SO_2 emissions shall be calculated by conducting a material balance on sulfur; VOC emissions and PM-10 emissions shall be calculated by multiplying the pollutant's time-averaged emission rate found in Appendix D of this permit by the number of hours of CT transient mode operation. These emissions shall be used in the calculation to demonstrate compliance with the affected source-wide annual emission limitations.
    (9 VAC 5-80-490 B & C and Condition 34 of the July 10, 2014 NSR Permit)

27. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Continuous Emission Monitoring System (CEMS) Data Substitution – Annual Emissions Calculations** – In the event of missing or invalid NO_X or CO hourly CEMS data and for the purpose of calculating rolling annual emissions, the permittee shall substitute the emission rate in Appendix D for the missing NO_X or CO CEMS data. The permittee shall identify the operating mode of the CT/HRSG with DB and refer to Appendix D of this permit to obtain the appropriate NO_X or CO emission rate. The emission rate selected shall replace the missing data for the purpose of calculating the rolling consecutive 365 day annual emission

calculation. This CEMS data substitution procedure is neither appropriate for nor applicable to the NO_X emissions trading program.
(9 VAC 5-80-490 and Condition 42 from the July 10, 2014 NSR Permit)

28. **Fuel Burning Equipment - CT/HRSG with DB – Continuous Opacity Monitoring Systems (COMS)** – A Continuous Opacity Monitoring Systems (COMS), meeting the design specifications of 40 CFR Part 60, Appendix B, shall be installed to measure and record the opacity of emissions from each CT/HRSG with DB. The COMS shall be located downstream of the DB and SCR control device. Except where otherwise indicated in this permit, the COMS shall be installed, calibrated, maintained, audited and operated in accordance with the requirements of 40 CFR 60.13, 40 CFR 60 Subpart Db, and 40 CFR 60 Appendix B. Data shall be reduced to six-minute averages.

    The Regional Air Compliance Manager of the DEQs NRO shall be notified in writing at least thirty days prior to the demonstration of COMS performance. Subsequent similar notification requirements are to be submitted to the Regional Air Compliance Manager of the DEQs NRO.
    (9 VAC 5-80-490 B & C and Condition 44 of the July 10, 2014 NSR Permit)

29. **Fuel Burning Equipment - CT/HRSG with DB – Continuous Emission Monitoring System (CEMS) and the Continuous Opacity Monitoring Systems (COMS)** – The COMS, NO_X CEMS, O_2 CEMS, and CO CEMS required by this permit shall meet a minimum data capture of 95 percent of the affected source operating hours, calculated monthly, on a twelve (12) consecutive month rolling period.
    (9 VAC 5-80-490 B & C and Condition 46 of the July 10, 2014 NSR Permit)

30. **Fuel Burning Equipment – HRSG with DB NO_X CEM Compliance Demonstration** – The permittee shall use the 40 CFR 75 compliant NO_X CEMS to monitor the NO_X emissions generated by each HRSG DB (ID#s I-B and II-B). The NO_X CEMS shall be operated and data recorded during all periods of operation of the HRSG DB (ID#s I-B and II-B) except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments; however data during these checks and adjustments shall not be used in calculating emissions.

    The NO_X CEMS results shall be reported in units of lb/million Btu heat input and shall be used to calculate the average 1-hour NO_X emission rate of each HRSG DB (ID#s I-B and II-B). At least 2 data points must be used to calculate each 1-hour average.
    (9 VAC 5-50-410 Subpart Db and 40 CFR 60.48b (c & d)

    The NO_X CEMS required by this permit shall meet a minimum data capture of 75% of the operating hours in each HRSG DB (ID#s I-B and II-B) steam generating unit operating day, in at least 22 out of 30 successive HRSG DB (ID#s I-B and II-B) steam generating unit operating days.

    A "steam generating unit operating day" means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the HRSG with DB (steam generating unit). It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

When NO_X CEMS data is not obtained due to CEMS breakdown, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide the minimum NO_X emissions data capture rate identified in this condition.
(9 VAC 5-80-490 B & C and Condition 40, 47, and 52 of the July 10, 2014 NSR Permit)

31. **Fuel Burning Equipment - CT/HRSG with DB – Continuous Opacity Monitoring Systems (COMS)** – At the discretion of the Board, the COMS monitors required by this permit, the COMS data, and the quality assurance data may be used to determine compliance with the opacity standards. Each COMS is subject to such data capture requirements and/or quality assurance requirements as specified in this permit and as may be deemed appropriate by the Board. (For each COMS use 40 CFR 60.13 and 40 CFR 60, Appendix B and F.)
(9 VAC 5-80-490 B & C and Condition 45 of the July 10, 2014 NSR Permit)

32. **Fuel Burning Equipment Requirements – CT – Monitoring – Water to Fuel Ratio Monitoring** – A continuous monitoring system (CMS) shall be installed to measure and record the hourly water consumption of each CT. The permittee shall determine the average hourly ratio of water to numbers 1 and 2 distillate fuel oil burned in each CT. The system shall be accurate to within ±5% and shall be approved by the Regional Air Compliance Manager of the DEQs NRO. The monitoring system shall be operated at all times that water is being injected into the CT. The water injection system shall be maintained and calibrated in accordance with manufacturer's specifications. A thirty day notification prior to the demonstration of continuous monitoring system performance and subsequent notification requirements are to be submitted to the Regional Air Compliance Manager of the DEQs NRO.
(9 VAC 5-80-490 E and Condition 43 of the July 10, 2014 NSR Permit)

Recordkeeping:

33. **Fuel Burning Equipment - CT/HRSG with DB – Recordkeeping – On Site Records** – The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit and to support the reporting requirements specified in 40 CFR 60. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQs NRO. The records shall include, but are not limited to:

CT Records - 9 VAC 5-50-410 Subpart GG

a. The hourly water injection rate and hourly fuel consumption rate of each CT; in accordance with Applicability Determination Index (ADI) Control Number 0200080, item 4, (see Appendix E) the hourly water injection rate need not be recorded or reported if the CT NO_X CEMS required by this permit is maintained in accordance with 40 CFR Part 75 and is fully compliant with 40 CFR 75 and Part 75 data substitution procedures;

b. The requirement to calculate, record, and report the hourly water-to-fuel ratio of water and fuel consumed by each CT (ID#s I-A and II-A) when burning fuel oil is waived, provided the CT NO_X CEMS required by this permit is maintained in accordance with 40 CFR Part 75 and is fully compliant with 40 CFR 75 and Part 75 data substitution procedures;

c. Hourly average of CEMS measurements for NO_X, O_2, and CO emissions from each CT or CT/HRSG with DB;

d. Records of the sulfur content of fuel combusted in the CT. Records shall be maintained for each occasion the fuel sulfur content is monitored.

HRSG DB Records - 9 VAC 5-50-410 Subpart Db

e. Records of the amount of each fuel combusted in each HRSG with DB on a daily basis. The permittee shall calculate and record the annual capacity factor of each HRSG with DB on a 12-month rolling basis for each fuel burned. A new annual capacity factor shall be calculated at the end of each calendar month.

f. Records of CT/HRSG with DB opacity measurement obtained by the COMS and by Method 9 opacity observations.

g. Records of numbers 1 and 2 distillate fuel oil supplier certifications for all numbers 1 and 2 distillate fuel oil burned in the HRSG with DB. Numbers 1 and 2 distillate oil burned in the HRSG with DB need not meet the fuel nitrogen content specification defined in 40 CFR 60.41.b (ASTM D396 (or other approved applicable ASTM method, incorporated in 40 CFR 60 by reference) for numbers 1 or 2 distillate fuel oil).

h. NO_X CEMS data recorded and reported for each HRSG with DB shall not include data substitution based on the missing data procedures in 40 CFR 75 Subpart D, nor shall the data substitution include data that has been bias adjusted according to the procedures of 40 CFR 75.

i. Daily records of the following information for each HRSG with DB steam generating unit operating day. Quarterly reports containing the information shall be submitted to the Regional Air Compliance Manager of the DEQs NRO and the EPA, postmarked no later than the 30th day following the end of the calendar quarter:

   i. Calendar date.

   ii. The average hourly NO_X emission rates (expressed as NO_2) (lb/million Btu heat input) measured or predicted.

   iii. The 30-day average NO_X emission rate (lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured NO_X emission rates for the preceding 30 steam generating unit operating days.

   iv. Identification of the steam generating unit operating days when the calculated 30-day average NO_X emission rates are in excess of the nitrogen oxides emission limit for each HRSG with DB. Include the reasons for such excess emissions as well as a description of corrective actions taken.

   v. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a

description of corrective actions taken.

vi. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

vii. Identification of 'F' factor used for calculations, method of determination, and type of fuel combusted.

viii. Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

ix. Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specifications.

x. Results of CEMS drift tests and quarterly accuracy assessments.

CT or CT/HRSG DB Records

j. Records of pounds/hour emissions of SO_2 for each CT and each CT HRSG/DB, calculated hourly. Calculations shall be based on the amount of fuel burned and the sulfur content. The permittee shall maintain supporting data on a daily basis and a sample calculation on an annual basis.

HRSG DB Records

k. Records of each instance where a CT and its associated HRSG with DB do not burn the same type fuel during periods of normal operation.

Facility Records

l. Records of each replacement or addition of SCR catalyst.

m. The permittee shall calculate and document excess emissions resulting from CT start-up (including LLE) operations that last more than 6 hours.

n. Records of the quantity of natural gas and numbers 1 and 2 distillate fuel oil burned in each CT (ID#s I-A and II-A), and HRSG DB (ID#s I-B and II-B), on a daily basis. The annual quantity (volume) of natural gas and numbers 1 and 2 distillate fuel oil burned facility-wide shall be calculated and recorded daily on a 365 day rolling basis.

o. Records of hourly heat input (MMBtu/hr) to each HRSG DB.

p. Monitoring results of each test to determine sulfur content (grains sulfur/100 dscf natural gas) and the HHV of the natural gas, and the date the test was performed.

q. Records of the numerical results of each natural gas sulfur content test (grains/100 dscf) or the 365 consecutive day rolling average of the natural gas sulfur content, calculated daily. Results of daily 365 consecutive day rolling average of natural gas sulfur content

shall be calculated and recorded starting with the first test result that demonstrates the sulfur content of the natural gas is greater than 0.5 grains/100 dscf. The 365 consecutive day rolling average shall be calculated and recorded daily until the annual average drops below 0.5 grains/100 dscf.

r. Date of test, test method used, and test results for HHV and sulfur content of the as-fired numbers 1 and 2 distillate fuel oil. The permittee shall obtain and maintain certifications of as-fired numbers 1 and 2 distillate fuel oil sulfur content and HHV as determined by the permittee, a service contractor retained by the permittee, the fuel oil vendor or other DEQ approved agency.

s. Record the 'F' factor or the volume of stack gases used to convert NO_X and CO CEMS concentrations to mass emission rates, method of determination, and type of fuel combusted.

t. Records of continuous monitoring system (CEMS and COMS) calibrations and calibration checks, data capture percentages for the CT/HRSG DB CEMS and COMS, data capture percentages for the HRSG DB CEMS, and continuous monitoring system quality assurance checks.

u. For each CT and HRSG DB, maintain daily records of each emission unit's operating mode, as defined in Appendix C, and records of the number of hours of operation in each operating mode.

v. Results of all stack tests and visible emission evaluations

w. Scheduled and unscheduled maintenance and operator training.

All of the preceding records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-50-50, 9 VAC 5-80-490, 40 CFR 60, Subpart Db, 40 CFR 75, and Condition 55, 56, and 62 of the July 10, 2014 NSR Permit)

34. **Fuel Burning Equipment Requirements – HRSG with DB – Recordkeeping – Fuel Certification** – The permittee shall obtain a certification from the fuel supplier with each shipment of Numbers 1 and 2 distillate fuel oil. Each fuel supplier certification shall include the following for all Numbers 1 and 2 distillate fuel oil burned in the HRSG with DB:

a. The name of the fuel supplier;

b. The date on which the Numbers 1 and 2 distillate fuel oil was received;

c. The quantity of Numbers 1 and 2 distillate fuel oil delivered in the shipment;

d. A statement that the Numbers 1 and 2 distillate fuel oil complies with the American Society for Testing and Materials specification D396 (or other approved applicable ASTM method, incorporated in 40 CFR 60 by reference) for Numbers 1 and 2 fuel oil; and

e. The sulfur content of the numbers 1 and 2 distillate fuel oil.

Item e. shall be determined and certified for each shipment of numbers 1 and 2 distillate fuel oil when fuel supplier certification is used to comply with fuel sulfur content requirements of 9 VAC 5-50-410 (40 CFR 60 Subpart Db).

Prior to changing to or from permittee analysis of as-fired distillate fuel oil sulfur content versus fuel supplier certification of distillate fuel oil sulfur content, the permittee shall obtain approval from the Regional Air Compliance Manager of the DEQs NRO to change the method of demonstrating compliance with item e. above.

Numbers 1 and 2 distillate fuel oil sulfur content shall be determined by following procedures identified in ASTM D 2880 (or other approved applicable ASTM method, incorporated in 40 CFR 60 by reference). If an alternative procedure is used to determine sulfur content in the distillate fuel oil, the procedure shall be submitted for approval by the Regional Air Compliance Manager of the DEQs NRO prior to firing the Numbers 1 and 2 distillate fuel oil.

For the purposes of item e. above and for the purpose of 9 VAC 5-50-410 Subpart Db, the Numbers 1 and 2 distillate fuel oil sulfur content must be 0.05 percent or less by weight. When the permittee tests as-fired numbers 1 and 2 distillate fuel oil for sulfur content, the permittee shall record and certify the sulfur content test results or obtain documentation and certification of the test results from the testing laboratory. For the purposes of 9 VAC 5-50-410 Subpart Db, the numbers 1 and 2 distillate fuel oil need not meet the fuel nitrogen content specification of 0.05 or less weight percent nitrogen.

These records shall be available on site for inspection by DEQ personnel. These records shall be kept on file for the most current five year period.
(9 VAC 5-80-490, 40 CFR 60, Subpart Db, and Condition 25 of the July 10, 2014 NSR Permit)

Reporting:

35. **Fuel Burning Equipment Requirements – HRSG with DB – Reporting** – The permittee shall report each hour in which the actual combined heat input of all HRSG with DB exceeds 249.9 million Btu/hr. The report shall be submitted within four business hours and shall include the time and duration when the sum of the emission units heat input exceed 249.9 million Btu/hr, the type of fuel consumed by each emission unit, the rate of fuel consumption (actual volume of fuel consumed per hour), and the HHV of the fuel (per unit volume).
(9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 58 of the July 10, 2014 NSR Permit)

36. **Fuel Burning Equipment Requirements – HRSG with DB – Reporting** – For each quarter, submit a report on the SCR system operations. The report shall include statements of each replacement or addition of SCR catalyst. Details are to be arranged with the Regional Air Compliance Manager of the DEQs NRO.
(9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 63.h of the July 10, 2014 NSR Permit)

37. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Reporting** – For each month in the quarter, report each period during which an Ice Fog exemption provided in 40 CFR 60.332(f) is in effect. For each ice fog exemption, report the ambient conditions (including temperature and barometric pressure), the date and time the air pollution control

system was deactivated, and the date and time the air pollution control system was reactivated.
(9 VAC 5-80-490, and Condition 61.b of the July 10, 2014 NSR Permit)

38. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Reporting** – For each month in the quarter, report, as required in 40 CFR 60.7(c), each period during which an emergency fuel exemption provided in 40 CFR 60.332(k) is in effect. For each emergency fuel exemption, report the type, reasons, and duration of the firing of the emergency fuel.
(9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 61.c of the July 10, 2014 NSR Permit)

39. **Fuel Burning Equipment Requirements – HRSG with DB – Reporting** – For each month of the calendar quarter report the annual capacity factor for each fuel burned in each HRSG with DB. The annual capacity factor is determined on a rolling 12-month basis.
(9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 62.a of the January 31, 2013 NSR Permit)

40. **Fuel Burning Equipment Requirements – HRSG with DB – Reporting** – The daily records maintained for each HRSG with DB steam generating unit operating day, as contained in the record keeping section of this permit.
(9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 62.b of the July 10, 2014 NSR Permit)

41. **Fuel Burning Equipment Requirements – HRSG with DB – Reporting** – If numbers 1 and 2 distillate oil was received during the calendar quarter, the quarterly report shall include a certified signed statement from the permittee that states the fuel supplier certifications (maintained at the affected source) represent all of the distillate oil burned in the HRSG with DB or represent all of the distillate oil received at this affected source during the quarter. The certified statement shall indicate whether all the numbers 1 and 2 distillate fuel oil burned at this affected source or in the HRSG with DB meets the definition of distillate oil as defined 40 CFR 60 Subparts Db. The statement shall include the name of the numbers 1 and 2 distillate fuel oil supplier(s) and the test method used to determine sulfur content.
(9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 62.c of the July 10, 2014 NSR Permit)

42. **Fuel Burning Equipment Requirements – HRSG with DB – Reporting** – If no shipments of numbers 1 and 2 distillate fuel oil were received during the calendar quarter, the quarterly report shall include a statement that no distillate oil was received during the calendar quarter.
(9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 62.d of the July 10, 2014 NSR Permit)

43. **Fuel Burning Equipment Requirements – HRSG with DB – Reporting** – For each month in the quarter, report each hour in which the actual heat input sum of the HRSG with DB exceeds 249 MMBtu/hour. The quarterly report shall include the following for each occurrence:

    a. The type of fuel consumed by each emission unit,

    b. The actual heat input rate and actual rate of fuel consumption (actual volume fuel consumed per hour) for each emissions unit, and

    c. The HHV of the fuel (Btu per volume fuel).

    (9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 63.a of the July 10, 2014 NSR Permit)

44. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Reporting** – For each month of the quarter, report each instance where a CT and its associated HRSG with DB do not burn the same type fuel.
(9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 63.f of the July 10, 2014 NSR Permit)

45. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Reporting** – For each month of the quarter, report each day when the calculated hourly SO_2 emission rate exceeds the SO_2 emission limit for each CT or CT/HRSG with DB. The report shall include the calculated emission rate, type of fuel burned, and the time and duration of the exceedance.
(9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 63.g of the July 10, 2014 NSR Permit)

46. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Reporting** – For each month in the quarter, report each occasion when the measured HHV of the natural gas is less than 967 Btu/scf. Records shall include the test date, measured HHV, fuel sulfur content, the quantity of natural gas burned, and the hours of emission unit operation since the natural gas was previously tested for its HHV.
(9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 63.m of the July 10, 2014 NSR Permit)

47. **Fuel Burning Equipment Requirements – CT/HRSG with DB – Reporting** – For each month in the quarter, report each occasion when the measured HHV of the distillate fuel oil is less than 132,000 Btu/gallon. Records shall include the test date, measured HHV, fuel sulfur content, the quantity of distillate oil burned, and the hours of emission unit operation since the distillate oil was previously tested for its HHV.
(9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 17 of the July 10, 2014 NSR permit)

48. **Fuel Burning Equipment - CT/HRSG with DB – Continuous Emission Monitoring and Continuous Monitoring System – Quarterly Report – Excess Emission Reporting** – The permittee shall furnish written reports to the Regional Air Compliance Manager of the DEQs NRO of excess emissions from any process monitored by a continuous monitoring system on a quarterly basis, postmarked no later than the 30th day following the end of the calendar quarter. These reports shall include, but are not limited to the following information:

    a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;

    b. Specific identification of each period of excess emissions that occurs during startups (including LLE), shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;

    c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.

e. For each month in the quarter, report each hour in which a CT or CT/HRSG with DB hourly NO_X (as NO_2) permit limit is exceeded. The report shall include the following for each excess emission of NO_X: start time, end time, duration, emission units involved, actual NO_X emission in ppmvd @ 15% O_2 for CT, actual NO_X emission in pounds/MMBtu for HRSG with DB, average water-to-fuel ratio of the CT (ratio not required provided the CT NO_X CEMS required by this permit is maintained in accordance with 40 CFR Part 75 and is fully compliant with 40 CFR 75 and Part 75 data substitution procedures), fuel type, fuel consumption rate, actual weather conditions (temperature and barometric pressure), and CT load.

   In accordance with Applicability Determination Index (ADI) Control Number 0200080, item 4 (see Appendix E), the average hourly water-to-fuel ratio of each CT need not be calculated, recorded or reported if the CT NO_X CEMS required by this permit is maintained in accordance with 40 CFR Part 75 and is fully compliant with 40 CFR 75 and Part 75 data substitution procedures.

f. For each month in the quarter, report each day in which a CT or CT/HRSG with DB CO permit limit is exceeded. The report shall include the following for each excess emission of CO: start time, end time, duration, emission unit(s) involved, actual CO emissions in ppmvd @ 15% O_2 and lbs CO/hour/unit, fuel type, fuel consumption rate, and CT load.

g. For each month in the quarter, report each day in which a CT or CT/HRSG with DB opacity limit is exceeded, including periods of startup (including LLE), shutdown, or malfunction. The report shall include the following for each excess emission of opacity: start time, duration, emission units involved, actual opacity reading(s), fuel type and consumption rate, CT load, and corrective action taken. Excess opacity emissions for the CT and CT/HRSG with DB are defined as all 6-minute periods during which the average opacity exceeds the opacity standard. The quarterly report shall include a monitoring system downtime report and/or summaries in accordance with 40 CFR 60.7 (c) and (d), and 40 CFR 75.

h. HRSG with DB – For each day in the quarter, report any excess emissions of NO_X generated by each HRSG with DB. Excess emissions are defined as each calculated 30-day rolling average NO_X emission rate which exceeds the NO_X emission limit contained in this permit for HRSG with DB.

i. The permittee shall report all excess opacity and the percentage of operating hours for which opacity monitoring data have not been obtained. If no excess opacity occurred or no opacity monitoring data were obtained for all operating hours during the reporting period, the quarterly report shall contain a statement as such.

j. Report any daily period when the sulfur content of the natural gas or numbers 1 and 2 distillate fuel oil fired in the CT exceeds 0.8 percent.
   (9 VAC 5-50-50, 9 VAC 5-80-490 E, 40 CFR 60, Subpart Db, 40 CFR 60, Subpart GG, 40 CFR 75, and in this, 60, 61, and 63 of the July 10, 2014 NSR Permit)

Fuel Burning Equipment – Caterpillar C175-16 diesel engine generator set

Limitations:

49. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Operation Limitations** – The diesel engine generator set shall not operate more than 250 hours per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12 month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-490 B & C and Condition 12 of the July 10, 2014 NSR Permit)

50. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Operation Limitations** – The diesel engine generator set shall only be operated in the following modes:

    a. In situations that arise from sudden and reasonably unforeseeable events where the primary energy or power source is disrupted or disconnected due to conditions beyond the control of an owner or operator of a affected source including:

        i. A failure of the electrical grid;

        ii. On-site disaster or equipment failure; or

        iii. Public service emergencies such as flood, fire, natural disaster, or severe weather conditions.

    b. For participation in an ISO-declared emergency, where an ISO emergency is:

        i. An abnormal system condition requiring manual or automatic action to maintain system frequency, to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property;

        ii. Capacity deficiency or capacity excess conditions;

        iii. A fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel;

        iv. Abnormal natural events or man-made threats that would require conservative operations to posture the system in a more reliable state; or

        v. An abnormal event external to the ISO service territory that may require ISO action.

    c. For periodic maintenance, testing, and operational training.

Total emissions for any 12 month period is calculated as the sum of all emissions from operations under the scenarios above, shall not exceed the limits stated in Condition 89 of this permit.
(9 VAC 5-80-490 B & C and Condition 11 of the July 10, 2014 NSR Permit)

51. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Operation Limitations** – As of the date of this permit, the diesel engine generator set is considered an affected source for the purposes of 40 CFR 60 Subpart IIII. See Section entitled "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (NSPS – 40 CFR 60, Subpart IIII)" of this permit for the 40 CFR 60 Subpart IIII requirements for the emergency engines.
(9 VAC 5-80-490 and 40 CFR 60, Subpart IIII)

52. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Operation Limitations** – As of the date of this permit, the diesel engine generator set is considered an affected source for the purposes of 40 CFR 63 Subpart ZZZZ. See Section entitled "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT – 40 CFR 63 Subpart ZZZZ)" of this permit for the RICE MACT requirements for the emergency engines.
(9 VAC 5-80-490 and 40 CFR 63 Subparts A and ZZZZ)

53. **Fuel Burning Equipment Requirements – Diesel Engine Generator Set – Fuel Limitations** – The diesel engine generator set shall consume no more than 53,300 gallons of diesel fuel per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12 month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-490 B & C and Condition 21 of the July 10, 2014 NSR Permit)

54. **Fuel Burning Equipment Requirements – Diesel Engine Generator Set – Emission Limitations** – Emissions from the diesel engine generator set shall be controlled by the following:

    a. Nitrogen oxides (as NO_2) emissions from the diesel engine generator set shall be controlled by electronic fuel injection, turbocharged engine and after-cooler.

    b. Sulfur Dioxide (SO_2) emissions from the diesel engine generator set shall be controlled by the use of ultra low sulfur diesel fuel oil with a sulfur content not to exceed 0.0015% by weight (15 ppm).

    c. Visible emissions, carbon monoxide (CO) and volatile organic compounds (VOC) emissions from diesel engine generator Set shall be controlled by the use of good operating practices and performing appropriate maintenance in accordance with the manufacturer recommendations. In addition, the permittee may only change those settings that are permitted by the manufacturer and does not increase air emissions from the engine.

    (9 VAC 5-80-490 B & C and Condition 2 of the July 10, 2014 NSR Permit)

55. **Fuel Burning Equipment Requirements – Diesel Engine Generator Set – Emission Limitations** – Hourly Emissions from the operation of the diesel engine generator set shall not exceed the limits specified below:

	Each Unit
Nitrogen Oxides (as NO_2)	58.5 lbs/hr
Carbon Monoxide (CO)	7.68 lbs/hr

The hourly emissions are derived from the manufacturer's data at maximum design capacity of the diesel engine. Compliance with the hourly NO_X emission limits may be based on testing if required by the DEQ.
(9 VAC 5-80-490 B & C and Condition 28 of the July 10, 2014 NSR Permit)

56. **Fuel Burning Equipment Requirements – Diesel Engine Generator Set – Emission Limitations** – Visible emissions from the diesel engine generator set exhaust shall not exceed ten (10) percent opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed twenty (20) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-490 B & C and Condition 36 of the July 10, 2014 NSR Permit)

Monitoring:

57. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Monitoring** – A continuous monitoring system shall be installed to measure the hourly consumption of diesel fuel (in gallons/hour) by the diesel engine generator set.
(9 VAC 5-80-490 B & C and Condition 48 of the July 10, 2014 NSR Permit)

58. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Monitoring** – The diesel engine generator set shall be equipped with a non-resettable hour metering device to monitor the operating hours. The non-resettable hour meter used to continuously measure the hours of operation for the diesel engine generator set shall be observed by the owner with a frequency of not less than once each day the diesel engine generator set is operated. The owner shall keep a log of these observations.

The monitoring device shall be installed, maintained, calibrated (as appropriate) and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the diesel engine generator set is operating.
(9 VAC 5-80-490 and Condition 8 of the July 10, 2014 NSR Permit)

Recordkeeping:

59. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Recordkeeping** – The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit and to support the reporting requirements specified in 40 CFR 60. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQs NRO. These records shall include, but are not limited to:

a. Annual hours of operation of the diesel engine generator set, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12 month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

b. Annual consumption of diesel fuel by the diesel engine generator set, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12 month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

c. Using DEQ approved emission factors, the permittee shall calculate and record NO_X, CO, SO_2, VOC and PM-10 emissions generated by the diesel engine generator set, on a monthly basis.

d. All fuel supplier certifications

e. Engine information including make, model, serial number, model year, maximum engine break horsepower (bhp), and engine displacement for the diesel engine generator set.

f. The manufacturer's written operating instructions or procedures developed by the owner/operator that are approved by the engine manufacturer for the diesel engine generator set.

g. Records of the reasons for operation of the diesel engine generator set, including, but not limited to, the date and cause of operation (cause of the emergency).

(9 VAC 5-80-490 and Condition 56 of the July 10, 2014 NSR Permit)

60. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Recordkeeping** – The permittee shall obtain a certification from the fuel supplier with each shipment of Ultra Low Sulfur Diesel fuel. Each fuel supplier certification shall include the following:

a. The name of the fuel supplier;

b. The date on which the diesel fuel was received;

c. The quantity of diesel fuel delivered in the shipment;

d. A statement that the diesel fuel complies with the American Society for Testing and Materials specifications (ASTM D975) for S15 diesel fuel oil; and

e. The sulfur content of the diesel fuel.

f. Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 69. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.

(9 VAC 5-80-490 and Condition 26 of the July 10, 2014 NSR Permit)

Testing:

61. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Testing –** Upon request by the DEQ, the permittee shall conduct a VEE on the diesel engine generator set to demonstrate compliance with the visible emission limits contained in this permit. The details of the VEE shall be arranged with the Regional Air Compliance Manager of the DEQs NRO.
(9 VAC 5-50-30, 9 VAC 5-80-490, and Condition 53 of the July 10, 2014 NSR Permit)

62. **Fuel Burning Equipment Requirements – Diesel Engine Generator Set – Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-490)

Reporting:

63. **Fuel Burning Equipment Requirements – Diesel Engine Generator Set – Reporting –** The permittee shall submit reports to the Regional Air Compliance Manager of the DEQs NRO, within 30 days after the end of each quarterly period. Each quarterly report shall include the dates covered in the report and shall report each day that the rolling 365 consecutive day sum of diesel fuel burned in the diesel engine generator set exceeds the permitted annual fuel throughput limitation.
(9 VAC 5-80-490 and Condition 64 of the July 10, 2014 NSR Permit)

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (NSPS – 40 CFR 60, Subpart IIII)

64. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Operation Limitations (IIII)** – The permittee shall operate and maintain the diesel engine generator set and associated control devices in accordance with the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. The permittee may only change those settings that are permitted by the manufacturer and does not increase air emissions. The diesel engine generator set shall be certified to the emission standards in 40 CFR 60.4205(b), and for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications, at a minimum. The permittee shall operate the engine according to the emission standards as required in 40 CFR 60.4205 over the entire life of the engine.
(9 VAC 5-80-490 B & C, 40 CFR 60.4206, 40 CFR 60.4211(a) and (c), 40 CFR 63.6605, and Condition 10 of the July 10, 2014 NSR Permit)

65. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Operation Limitations (IIII)** – The permittee shall operate and maintain the diesel engine generator set according to the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. These emission limits shall be equal to or less than;

    a. NMHC + NO_X – 6.4 g/kW-hr

    b. CO – 3.5 g/kW-hr

c. PM – 0.20 g/kW-hr

d. 20 % opacity during acceleration mode

e. 15 % opacity during lugging mode

f. 50 % during the peaks in either the acceleration or lugging modes
(9 VAC 5-80-490 and 40 CFR 60.4206)

66. **Fuel Burning Equipment Requirements – Diesel Engine generator Set – Operational Limitations (IIII)**

a. The emergency diesel engine generator set may be operated for emergency demand response

b. The emergency stationary diesel engine generator set may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, the regional transmission operator, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year.

c. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year.

d. The emergency diesel engine generator set may be operated for emergency demand response up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.
(9 VAC 5-80-490 and 40 CFR 60.4211(f))

67. **Fuel Burning Equipment Requirements – Diesel Engine Generator Set – Fuel Limitations (IIII)** – The approved fuel for the diesel engine generator set is ultra low-sulfur diesel (ULSD) fuel. The ULSD fuel shall meet the ASTM D975 specification for S15 diesel fuel oil with maximum sulfur content per shipment of 0.0015%. A change in the fuel may require a permit to modify and operate. Beginning October 1, 2010, owners and operators of stationary CI ICE subject to 40 CFR 60, Subpart IIII with a displacement of less than 30 liters per cylinder must purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for non-road diesel fuel.
(9 VAC 5-80-490 B & C, 40 CFR 60.4207(b), and Condition 13 of the July 10, 2014 NSR Permit)

National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT – 40 CFR 63, Subpart ZZZZ)

68. **Fuel Burning Equipment Requirements – Diesel Engine Generator Set – Operation Limitations (ZZZZ)** – The emergency diesel engine generator set shall show compliance with 40 CFR Part 63 Subpart ZZZZ by demonstrating compliance with 40 CFR Part 60 Subpart IIII, with "emergency" being defined as stated in 40 CFR 63.6675.
(9 VAC 5-80-490 and 40 CFR 63.6590(c))

Fuel Burning Equipment – Diesel Engine Driven Fire Suppression Water Pump Limitations:

69. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Operational Limitations** – As of the date of this permit, the diesel driven fire suppression water pump is considered an affected source for the purposes of 40 CFR 63 Subpart ZZZZ. See the section entitled "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT – 40 CFR 63, Subpart ZZZZ)" of this permit for the 40 CFR 63 Subpart ZZZZ requirements for the emergency engines.
(9 VAC 5-80-490 and 40 CFR 63, Subparts A and ZZZZ)

70. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Fuel Limitations** – The approved fuel for the diesel engine emergency fire pump is ultra low sulfur diesel (ULSD) fuel.

    The ULSD fuel shall meet the ASTM D975 (or other approved applicable ASTM method, incorporated in 40 CFR 60 by reference) specification for S15 diesel fuel oil with a minimum sulfur content per shipment of 0.0015%. A change in the fuel may require a permit to modify and operate.
    (9 VAC 5-80-490 and Condition 13 of the July 10, 2014 NSR Permit)

71. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Fuel Limitations** – The total amount of numbers 1 and 2 distillate fuel oil consumed by the diesel engine driven fire suppression water pump shall not exceed 700 gallons per consecutive 12 month period of non-emergency operation. This fuel consumption limitation is applicable to non-emergency operation of the diesel engine driven fire suppression water pump.
    (9 VAC 5-80-490 B & C and Condition 20 of the July 10, 2014 NSR Permit)

72. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Emission Limitations** – Visible emissions from diesel engine driven fire suppression water pump exhaust stack shall not exceed twenty (20) percent opacity, except during one six-minute period per hour in which opacity shall not exceed thirty (30) percent. The opacity standard shall apply at all times except during period of startup, shutdown, or malfunction. When a VEE is required, details of the VEE shall be arranged with the Regional Air Compliance Manager of the DEQs NRO.
    (9 VAC 5-80-490 B & C and Condition 38 of the July 10, 2014 NSR Permit)

Recordkeeping:

73. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Recordkeeping** – The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit and to support the reporting requirements of this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQs NRO. These records shall include, but are not limited to:

    a. Records of the amount of numbers 1 and 2 distillate fuel oil combusted by the diesel engine driven fire suppression water pump will be tabulated on a monthly basis.

    b. Using DEQ approved emission factors, the permittee shall calculate and record NO_X, CO, SO_2, VOC and PM-10 emissions generated by the diesel engine, on a monthly basis.

    (9 VAC 5-80-490 and Condition 56 of the July 10, 2014 NSR Permit)

Reporting:

74. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Reporting** – For each month in the quarter, report each day within the quarter when the rolling 365 consecutive day sum of numbers 1 and 2 distillate fuel oil burned in the diesel driven fire suppression water pump exceeds the permitted annual fuel throughput limitation.
    (9 VAC 5-50-50, 9 VAC 5-80-490, and Condition 63.c of the July 10, 2014 NSR Permit)

National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT – 40 CFR 63 Subpart ZZZZ)

75. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Operational Limitations (ZZZZ)** – The permittee shall operate and maintain the diesel driven fire suppression water pump and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
    (9 VAC 5-80-490 and 40 CFR 63.6625(e))

76. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Operational Limitations (ZZZZ)** – The permittee of the diesel driven fire suppression water pump shall comply with the following applicable requirements:

    a. Change oil and filter every 500 hours of operation or annually, whichever comes first.

    b. Inspect air clearer every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;

    c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

    (9 VAC 5-80-490 and 40 CFR 63.6603(a))

77. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Operational Limitations (ZZZZ)** – The diesel driven fire suppression water pump shall be equipped with a non-resettable hour meter if one is not already installed. (9 VAC 5-80-490 and 40 CFR 63.6625(f))

78. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Operational Limitations (ZZZZ)** – The diesel engine driven fire suppression water pump shall be operated as follows:

    a. The diesel engine generator set shall be operated and maintained according to the manufacturer's emission-related operation and maintenance instructions; or

    b. The permittee shall develop and follow their own maintenance plan which must provide, to the extent practicable, for the maintenance and operation of the diesel driven fire suppression water pump in a manner consistent with good air pollution control practice for minimizing emissions.

    (9 VAC 5-80-490 and 40 CFR 63.6640(a))

79. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Operational Limitations (ZZZZ)** – The permittee shall operate the diesel engine driven fire suppression water pump according to the requirements in paragraphs 40 CFR 63.6640(f)(1) through (4) of 40 CFR 63. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described below, is prohibited. If the owner/operator does not operate the engine according to the requirements below, the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ and must meet all requirements for non-emergency engines.

    a. There is no time limit on the use of emergency stationary RICE in emergency situations.

    b. The permittee may operate the emergency stationary RICE for any combination of the purposes specified below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by item c of this condition counts as part of the 100 hours per calendar year allowed by this paragraph 40 CFR 63.6640 (f)(2).

    c. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent, balancing authority, and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

    d. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in

non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph 40 CFR 63.6640 (f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
(9 VAC 5-80-490 and 40 CFR 63.6640(f)(1 – 4))

80. **Fuel Burning Equipment Requirements – Diesel Engine Driven Fire Suppression Water Pump – Recordkeeping (ZZZZ)** – The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation.
(9 VAC 5-80-490 and 40 CFR 63.6655(f))

Process Equipment Requirements – Number 1 and 2 Distillate Oil Tank
Limitations:

81. **Process Equipment Requirements – Number 1 and 2 Distillate Fuel Oil Tank – Limitations** – The onsite 5,000,000 gallon fixed roof storage tank shall be used to store numbers 1 and 2 distillate fuel oil only.
(9 VAC 5-80-490 and Condition 9 of the July 10, 2014 NSR Permit)

Recordkeeping:

82. **Process Equipment Requirements – Number 1 and 2 distillate fuel oil tank – Recordkeeping** – The permittee shall maintain records at the plant site showing the dimensions of the numbers 1 and 2 distillate fuel oil storage tank and an analysis showing the capacity of the tank shall be maintained at the plant-site.
(9 VAC 5-80-490 and Condition 56 of the July 10, 2014 NSR Permit)

83. **Process Equipment Requirements – Number 1 and 2 distillate fuel oil tank – Recordkeeping** – Compliance with the requirement to store only numbers 1 and 2 distillate fuel oil only in the storage tank shall be demonstrated by obtaining and maintaining fuel supplier certifications stating that oil delivered to the tank complies with the ASTM D396 (or other approved applicable ASTM method, incorporated in 40 CFR 60 by reference) definition of Numbers 1 or 2 fuel oil. The certifications stating the oil delivered to the tank is Number 1 or 2 distillate oil demonstrates the true vapor pressure of the volatile organic liquid stored is less than 5.14 KPa.
(9 VAC 5-80-490 and Condition 9 of the July 10, 2014 NSR Permit)

Affected Source Wide Conditions

Limitations:

84. **Affected Source Wide Conditions — Fuel Burning Equipment Requirements – CT/HRSG with DB, Diesel Engine Driven Fire Suppression Water Pump, and Diesel Engine Generator Set** – Requirements by Reference – Except as specified in this permit,

the affected source is to be operated in compliance with all applicable requirements of each applicable New Source Performance Standard (NSPS) including the following:

a. 40 CFR 60, Subpart GG - Standards of Performance for Stationary Gas Turbines;

b. 40 CFR 60, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units;

c. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines;

d. 40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
(9 VAC 5-80-490 and Condition 27 of the July 10, 2014 NSR Permit)

85. **Affected Source Wide Conditions – Fuel Limitations – Fuel Burning Equipment Requirements – CT/HRSG with DB, Diesel Engine Driven Fire Suppression Water Pump, and Diesel Engine Generator Set** – The total amount of numbers 1 and 2 distillate fuel oil consumed by the affected source, consisting of the two CT/HRSG with DB units and Diesel Engine Driven Fire Suppression Water Pump, along with ultra low sulfur diesel consumed by the diesel engine generator set shall not exceed 7.4407×10^7 gallons per consecutive 365 day period.
(9 VAC 5-80-490 B & C and Condition 19 of the July 10, 2014 NSR Permit)

86. **Affected Source Wide Conditions – Emission Limitations** – Total affected source-wide criteria pollutant emissions shall not exceed the limitations specified below, when summed over any consecutive 365 day period:

Sulfur Dioxide	249.9 tons/yr
Nitrogen Oxides (as NO_2)	245.0 tons/yr
Carbon Monoxide	249.9 tons/yr
Volatile Organic Compounds	97.1 tons/yr
PM-10	50.6 tons/yr

The following emission rate is derived from estimated overall emission contributions and is included for inventory purposes only:

Lead	49 lbs/yr

a. Compliance with the annual NO_X and CO emission limits shall be demonstrated on a daily basis by summing emissions of each pollutant over a rolling consecutive 365 day period. Affected source-wide NO_X and CO annual emission calculations shall include, at a minimum, emissions from each CT and CT/HRSG with DB, and monthly emissions from the diesel engine driven fire suppression water pump and diesel engine generator set.

b. The permittee shall collect and record all data necessary to calculate CT and CT/HRSG with DB NO_X and CO annual emissions using CEMS data. When valid NO_X and CO

CEMS data is not available, the default emission rates contained in Appendix D of this permit shall be substituted for the missing CEMS data when calculating annual emissions for compliance purposes.

c. Compliance with the SO_2 annual emission limit shall be demonstrated on a daily basis by summing emissions over a rolling consecutive 365 day period. The permittee shall collect and record all data necessary to calculate affected source-wide annual SO_2 emissions. Emission calculations shall include, at minimum, emissions from each CT and CT/HRSG with DB, and monthly emissions from the diesel engine driven fire suppression water pump and diesel engine generator set.

d. Compliance with the VOC and PM-10 annual emission limits shall be demonstrated on a daily basis by summing emissions over a rolling consecutive 365 day period. The permittee shall collect and record all data necessary to calculate the affected source-wide annual VOC and PM-10 emissions. VOC and PM-10 emission calculations shall include, at minimum, emissions from each CT and CT/HRSG with DB and monthly emissions from the diesel engine driven fire suppression water pump and diesel engine generator set. Daily emissions of VOC and PM-10 shall be calculated by summing the following calculation for each emission unit operating in a given day: pollutant specific emission factor (lbs/hour) for each emission unit operating in an Operating Mode found in Appendix D times the number of operating hours each emission unit operates in the Operating Mode found in Appendix D.

e. Emissions generated by each CT during start-up (including LLE), or transient operating modes (as defined in Appendix C) shall be included in the 365 day rolling sum of annual emissions. Daily CT start-up (including LLE), and transient emissions shall be calculated as follows: pollutant specific emission factor (lbs/hour) for each CT operating in an Operating Mode found in Appendix D times the number of operating hours each CT operates in the Operating Mode found in Appendix D. Actual valid NO_X or CO CEMS emissions or SO_2 emissions determined by material balance may be substituted for the NO_X, CO, or SO_2 emission factors identified in Appendix D when determining daily CT start-up (including LLE), and transient mode emissions.

f. Emissions generated by the diesel engine driven fire suppression water pump and diesel engine generator set shall be calculated using emission factors approved by the Regional Air Compliance Manager of the DEQs NRO.

g. Monthly emissions from the diesel engine driven fire suppression water pump and diesel engine generator set generated during month "X" shall be included in the annual rolling 365 consecutive day emission summation on the last day of month "X".

(9 VAC 5-80-490 and Condition 35 of July 10, 2014 NSR Permit)

Recordkeeping:

87. **Affected Source Wide Conditions – Recordkeeping** – The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit and to support the reporting requirements of this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQs NRO. These records shall include, but are not limited to:

a. Results of all stack tests and visible emission evaluations

b. Scheduled and unscheduled maintenance and operator training.

All of the preceding records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-490 and Condition 56 of July 10, 2014 NSR Permit)

88. **Fuel Burning Equipment Requirements – CT/HRSG with DB, Diesel Engine Generator Set, and Diesel Engine Driven Fire Suppression Water Pump – Recordkeeping** – The permittee shall maintain records of the required training including a statement of time, place, and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the affected units. These procedures shall be based on the manufacturer's recommendations, at a minimum. All records required by this condition shall be kept on site, made available for inspection by the DEQ, and shall be current for the most recent five years.
(9 VAC 5-80-490 and Conditions 56 and 68 of the July 10, 2014 NSR Permit)

Testing:

89. **Affected Source Wide Conditions – Testing** – The permitted affected source shall be constructed or modified so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the affected source/equipment such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing a stack or duct that is free from cyclonic flow. Sampling ports shall be provided when requested by the DEQ at the appropriate locations and safe sampling platforms and access shall be provided.
(9 VAC 5-50-30, 9 VAC 5-80-490, and Condition 54 of the July 10, 2014 NSR Permit)

90. **Affected Source Wide Conditions – Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-490)

Reporting:

91. **Affected Source Wide Conditions – Reporting** – The permittee shall submit one copy of excess emission reports and one copy of all quarterly reports, including those required at 9 VAC 5-50-410 Subparts Db, and GG and the reports required at 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ to the Regional Air Compliance Manager of the DEQs NRO and the Environmental Protection Agency (EPA) within 30 days after the end of each calendar quarter. Copies of reports shall be sent to:

Regional Air Compliance Manager
Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

Except as stated in Condition 115, all correspondence to the EPA concerning this permit should be submitted to the following address:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-80-490 and Condition 57 and 64 of July 10, 2014 NSR Permit)

92. **Affected Source Wide Conditions – Reporting** – For each month in the quarter, report the annual affected source-wide emissions of NO_X (as NO_2), CO, SO_2, VOC and PM-10 by calculating a rolling sum of affected source-wide emissions over each consecutive 12 month period.
(9 VAC 5-80-490 and Condition 63.b of July 10, 2014 NSR Permit)

93. **Affected Source Wide Conditions – Reporting** – For each month in the quarter, report all excess emissions of NO_X, CO, SO_2, VOC and PM-10 for each operating mode. Excess emissions resulting from CT start-up operations (including LLE) lasting less than 6 hours may be identified as start-up excess emissions. All excess emissions shall be included in the rolling 365 consecutive day affected source-wide emissions summation.
(9 VAC 5-80-490 and Condition 63.i of July 10, 2014 NSR Permit)

94. **Affected Source Wide Conditions – Reporting** – For each day in the quarter, when the annual rolling 365 consecutive day sum of natural gas or numbers 1 and 2 distillate fuel oil or ultra low sulfur diesel fuel burned at the affected source exceeds an annual affected source-wide fuel throughput limit, report the date and annual affected source-wide quantity of fuel burned.
(9 VAC 5-80-490 and Condition 63.j of July 10, 2014 NSR Permit)

95. **Affected Source Wide Conditions – Reporting** – For each month in the quarter, report each day when numbers 1 or 2 distillate fuel oil is burned and the sulfur content of the oil exceeds 0.05% by weight. For each month in the quarter, report each day when ULSD fuel oil is burned and the sulfur content of the oil exceeds 0.0015 % by weight
(9 VAC 5-80-490 and Condition 63.l of July 10, 2014 NSR Permit)

96. **Affected Source Wide Conditions – Reporting** – For each month in the quarter, report each day when natural gas is burned and the sulfur content of the gas exceeds 20 grains/100 dscf. For each month in the quarter, report each day in which natural gas is burned and the annual weighted average sulfur content of the natural gas exceeds 0.5 grains of sulfur/100 dscf.
(9 VAC 5-80-490 and Condition 63.k of July 10, 2014 NSR Permit)

97. **Affected Source Wide Conditions – Reporting** – For the purpose of calculating annual affected source-wide NO_X and CO emissions, hourly NO_X and CO CEMS data from the CT and CT/HRSG with DB shall be included in the rolling annual emissions calculation. When valid NO_X and CO CEMS data is not available, the default emission rates contained in Appendix D of this permit shall be substituted for the missing data.
(9 VAC 5-80-490 and Condition 63.e.iii of July 10, 2014 NSR Permit)

98. **Affected Source Wide Conditions – Reporting** – For the purpose of calculating annual affected source-wide VOC and PM-10 emissions, the permittee shall calculate daily emissions for each emissions unit using emission factors and process parameters approved in advance by the DEQ. The calculated daily emissions of VOC and PM-10 shall be summed over each 365 consecutive day period to determine annual emissions.
(9 VAC 5-80-490 and Condition 63.e.v of July 10, 2014 NSR Permit)

99. **Affected Source Wide Conditions – Reporting** – For the purpose of calculating annual emission of NO_X and CO generated by the diesel engine driven emergency water pump and the diesel engine generator set, the permittee shall calculate monthly emissions by using emission factors and process parameters approved in advance by the DEQ.
(9 VAC 5-80-490 and Condition 63.e.vi of July 10, 2014 NSR Permit)

100. **Affected Source Wide Conditions – Reporting** – For each month in the quarter, report each day that the rolling 365 consecutive day sum of affected source-wide NO_X, SO_2, CO, VOC or PM-10 emissions exceeds the respective affected source-wide annual permit limit. Include the pollutant name and the calculated 365 day sum of emissions for each pollutant that exceeds its annual permit emission limit. For each day reported, at a minimum, include the pollutant name, the pollutant's 365 consecutive day sum of affected source-wide emissions, and identify any data substitution. For the purposes of this condition, the permittee shall, at a minimum include;
    a. Daily emissions from each CT and CT/HRSG with DB, and monthly emissions from the diesel engine driven emergency water pump and the diesel engine generator set in the calculation of affected source-wide annual emissions.

    b. Monthly emissions from the diesel engine driven fire suppression water pump and the diesel engine generator set generated during month "X" shall be included in the annual rolling 365 consecutive day emission summation on the last day of month "X".

    (9 VAC 5-80-490 and Condition 63.e.i.ii of July 10, 2014 NSR Permit)

101. **Affected Source Wide Conditions – Reporting** – For the purpose of calculating annual affected source-wide SO_2 emissions, the sulfur content of the fuel and the quantity of fuel burned in each emission unit shall be used to calculate daily SO_2 emissions. The calculated daily emissions of SO_2 shall be summed over each 365 consecutive day period to determine annual emissions.
(9 VAC 5-80-490 and Condition 63.e.iv of July 10, 2014 NSR Permit)

102. **Affected Source Wide Conditions – Reporting – PSD Applicability Notification** – At such time that the permittee requests to amend the facility's minor New Source Review Permit or to modify the source in a manner which creates a federal major stationary source, the entire source including any modification may be subject to Prevention of Significant Deterioration (PSD) as though construction had not yet commenced on the source or modification. The source will be subject to PSD review if any enforceable limitation on the source's capacity to emit a pollutant is relaxed. Specifically, relaxation of any condition to allow combustion of fossil fuel in a steam generation unit in excess of 250 million Btu/hr or to allow the source to emit more than 249.9 tons/year of any pollutant will subject the entire source to PSD review as though construction had not commenced.
(9 VAC 5-80-490, 9 VAC 5-80 Article 8, and Condition 59 of July 10, 2014 NSR Permit)

103. **VOC Work Practice Standards** – At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions. (9 VAC 5-80-490 and Condition 24 of the July 10, 2014 NSR Permit)

Insignificant Emission Units

104. **Insignificant Emission Units** – The following emission units at the affected source are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
	DP-1 No. 2 diesel fuel tank	9 VAC 5-80-720.B	VOC emissions less than 1 ton/yr.	
	Emergency diesel generator set No. 2 diesel fuel tank	9 VAC 5-80-720.B	VOC emissions less than 1 ton/yr.	
CTG #1 and 2	Combustion Turbine Generator (CTG) Lube Oil Sumps	9 VAC 5-80-720.B	VOC emissions less than 1 ton/yr.	-
STG #1 and 2	Steam Turbine Generator (STG) Lube Oil Sumps	9 VAC 5-80-720.B	VOC emissions less than 1 ton/yr.	
STG #1 and 2	Hydraulic Oil Tanks	9 VAC 5-80-720.C	-	Less than 1000 gallons each.
O/W - 103 A/B/C and O/W 104 A/B/C	2 Rain water (drain tank) Oil/Water Separators	9 VAC 5-80-720.B	VOC emissions less than 1 ton/yr.	-
-	Sulfuric Acid Tank for pond control	9 VAC 5-80-720.A.43	-	-
-	Sodium Hydroxide for boiler water treatment operation	9 VAC 5-80-720.A.43	-	-

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for those emission units in accordance with 9 VAC 5-80-490.

Permit Shield & Inapplicable Requirements

105. **Permit Shield & Inapplicable Requirements** – Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted affected source:

Citation	Title of Citation	Description of Applicability
40 CFR 60 Subparts D, Da, and Dc	New Source Performance Standards for Fossil Fuel Fired Steam Generators, Electric Utility Steam Generating Units, and Industrial-Commercial-Institutional Steam Generating Units	Only Subpart Db applies to the duct burners at this facility and no other NSPS under Subpart D applies because the nature and size of the activities at the facility.
40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels	This standard does not apply to the fuel oil storage tanks because it is not applicable to units storing petroleum liquids with a vapor pressure less than 1.5 pounds per square inch.
40 CFR 60 Subpart KKKK	New Source Performance Standards for Combustion Turbines	The turbines were constructed prior to February 18, 2005, the applicability date of Subpart KKKK.
40 CFR 63 Subpart YYYY	MACT for Combustion Turbines	This facility is not a major source of HAPS; therefore, Subpart YYYY does not apply.
40 CFR 64	Compliance Assurance Monitoring	The affected source is exempt from CAM because it is a NSPS affected source, acid rain affected source, and emission limitations for which the permit requires a continuous compliance determination method. The facility has installed a CEMS on each of the CT exhaust stacks. The exemption is based on 40 CFR 64.2(b).

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicability requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law, or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-500)

General Conditions

106. **General Conditions – Federal Enforceability** – All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-490 N)

107. **General Conditions – Permit Expiration** – This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-430, the right of the affected source to operate shall be terminated upon permit expiration.
(9 VAC 5-80-430 B, C, and F, 9 VAC 5-80-490 D, and 9 VAC 5-80-530 B)

108. **General Conditions – Permit Expiration** – The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
(9 VAC 5-80-430 B, C, and F, 9 VAC 5-80-490 D, and 9 VAC 5-80-530 B)

109. **General Conditions – Permit Expiration** – No source shall operate after the time that is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-430 for a renewal permit, except in compliance with a permit issued under Article 1 or 3 , Part II or Chapter 80.
(9 VAC 5-80-430 B, C, and F, 9 VAC 5-80-490.D, and 9 VAC 5-80-530 B)

110. **General Conditions – Permit Expiration** – If an applicant submits a timely and complete application under section 9 VAC 5-80-430 for a permit renewal but the Board Fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9 VAC 5-80-430 B, C, and F, 9 VAC 5-80-490.D, and 9 VAC 5-80-530 B)

111. **General Conditions – Permit Expiration** – The protection under subsections F.1 and F.5(ii) of section 9 VAC 5-80-430. F shall cease to apply if, subsequent to the completeness determination made pursuant to section 9 VAC 5-80-430 D, the applicant fails to submit by the deadline specified in writing by the board any additional information identified as being needed to process the application.
(9 VAC 5-80-430 B, C, and F, 9 VAC 5-80-490 D, and 9 VAC 5-80-530 B)

112. **General Conditions – Recordkeeping and Reporting** – All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

    a. The date, place as defined in the permit, and time of sampling or measurement;

    b. The date(s) analyses were performed;

    c. The company or entity that performed the analysis;

    d. The analytical techniques or methods used;

    e. The results of such analyses;

    f. The operating conditions existing at the time of sampling or measurement.
    (9 VAC 5-80-490.F)

113. **General Conditions – Recordkeeping and Reporting** – Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
    (9 VAC 5-80-490 F)

114. **General Conditions – Recordkeeping and Reporting** – The permittee shall submit the results of monitoring contained in any applicable requirement to the Regional Air Compliance Manager of the DEQs NRO no later than March 1 and September 1 of each calendar year. The report must be signed by a responsible official, consistent with 9 VAC 5-80-430 G, and shall include:

    a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

    b. All deviations from permit requirements. For the purpose of this permit, deviations include, but are not limited to:

        i. Exceedance of emissions limitations or operational restrictions;

        ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring (CAM) which indicates as exceedance or emissions limitation or operational restriction; or

        iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-490 F)

115. **General Conditions – Annual Compliance Certification** – Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to the EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a) (3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-430 G, and shall include:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31.

b. The identification of each term or condition of the permit that is the basis for the certification.

c. The compliance status.

d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

e. Consistent with subsection 9 VAC 5-80-490 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

f. Such other facts as the permit may require in order to determine the compliance status of the source.

g. One copy of the annual compliance certification shall be submitted to EPA in an electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9 VAC 5-80-490 K.5)

116. **General Conditions – Permit Deviation Reporting** - The permittee shall notify the Regional Air Compliance Manager of the DEQs NRO within four daytime business hours after discovery of any deviations from the permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within fourteen (14) days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners

subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition 76 of this permit.
(9 VAC 5-80-490.F.2 and 9 VAC 5-80-650)

117. **General Conditions – Failure/Malfunction Reporting** - In the event that any affected source or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Regional Air Compliance Manager of the DEQs NRO by email, facsimile transmission, telegraph, or telephone of such failure or malfunction and shall within fourteen (14) days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Regional Air Compliance Manager of the DEQs NRO.
(9 VAC 5-20-180 C)

118. **General Conditions – Failure/Malfunction Reporting** - The emission units that have continuous monitors subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not subject to the fourteen (14) day written notification.
(9 VAC 5-20-180 C and 9 VAC 5-50-50)

119. **General Conditions – Failure/Malfunction Reporting - The** emission units subject to the reporting and the procedure requirements of 9 VAC 5-40-50 C and the procedures of 9 VAC 5-50-50 C are listed below:

    a. NO_X CEMS measurements for each CT/HRSG DB; and

    b. CO CEMS measurements for each CT/HRSG DB.
    (9 VAC 5-20-180 C and 9 VAC 5-50-50)

120. **General Conditions – Failure/Malfunction Reporting** - Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9 VAC 5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the Board quarterly. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. All reports shall include the following information:

    a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;

b. Specific identification of each period of excess emissions that occurs during startups (including LLE), shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;

c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C require written reports within fourteen (14) days of the discovery of the malfunction.
(9 VAC 5 -20-180 and 9 VAC 5-50-50)

121. **General Conditions – Severability** - The terms of this permit are severable. If any condition, requirement, or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-490 G.1)

122. **General Conditions – Duty to Comply** – The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law, or both and is ground for enforcement action; for permit termination, revocation, and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-490 G.2)

123. **General Conditions** – Need to Halt or Reduce Activity not a Defense – It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
(9 VAC 5-80-490 G.3)

124. **General Conditions – Permit Modification** - A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)

125. **General Conditions – Property Rights** - The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-490 G.5)

126. **General Conditions – Duty to Submit Information** – The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking, or reissuing, or terminating the

permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-490 G.6)

127. **General Conditions – Duty to Submit Information** – Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-430 G.
(9 VAC 5-80-490 K.1)

128. **General Conditions – Duty to Pay Permit Fees** – The owner of any source for which a permit under 9 VAC 5-80-360 through 9 VAC 5-80-700 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15th of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-490 H and 9 VAC 5-80-340 C)

129. **General Conditions – Fugitive Dust Emission Standards** – During the operation of a stationary source or any other building, structure, affected source, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

    a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

    b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

    c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

    d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and

    e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

    (9 VAC 5-50-90)

130. **General Conditions – Startup, Shutdown, and Malfunction** - At all times, including periods of startup (including LLE), shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected source including associated air

pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20 E)

131. **General Conditions – Alternative Operating Scenarios** – Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted affected source a record of the scenarios in which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of Chapter 80, Article 1.
(9 VAC 5-80-490 J)

132. **General Conditions – Inspection and Entry Requirements** – The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:
    a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

    b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

    c. Inspect at reasonable times any affected source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

    d. Sample or monitor at reasonable time's substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. .

    (9 VAC 5-80-490 K.2)

133. **General Conditions – Reopening For Cause** – The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 9 VAC 5-80-430 F. The conditions for reopening a permit are as follows:

    a. A permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

    b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-490 D.
(9 VAC 5-80-490 L)

134. **General Conditions – Permit Availability** – Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

135. **General Conditions – Transfer of Permits** – No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

136. **General Conditions – Transfer of Permits** – In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership whining thirty (30) days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

137. **General Conditions – Transfer of Permits** – In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within thirty (30) days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

138. **General Conditions – Malfunction as an Affirmative Defense** – A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of Condition 142 are met.
(9 VAC 5-80-650)

139. **General Conditions – Malfunction as an Affirmative Defense** – The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

b. The permitted affected source was at the time being properly operated.

c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceed the emission standards, or other requirements in the permit.

d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective action taken. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to

comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-490 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
(9 VAC 5-80-650)

140. **General Conditions – Malfunction as an Affirmative Defense** – In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
(9 VAC 5-80-650)

141. **General Conditions – Malfunction as an Affirmative Defense** – The provisions of the General Conditions section are in addition to any malfunction, emergency, or upset provision contained in any applicable requirement.
(9 VAC 5-80-650)

142. **General Condition – Permit Revocation or Termination for Cause** – A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects, or refuses to comply with the terms or conditions of the permit, or any applicable requirements, or the provisions of Chapter 80, Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

143. **General Conditions – Duty to Supplement or Correct Application** – Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of the draft permit.
(9 VAC 5-80-430-E)

144. **General Conditions – Stratospheric Ozone Protection** – If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subpart A to F.
(40 CFR Part 82, Subpart A-F)

145. **General Conditions – Asbestos Requirements** – The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-490 A.1)

146. **General Conditions – Accidental Release Prevention** – If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

147. **General Conditions – Changes to Permits for Emissions Trading** – No permit revision shall be required under any federally approved economic incentives, marketable permits, emission trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-490 I)

148. **General Conditions – Emissions Trading** - Where the trading of emissions increases and decreases within the permitted affected source is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

a. All terms and conditions required under 9 VAC 5-80-490, except subsection N, shall be included to determine compliance.

b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-360 through 9 VAC 5-80-700.

(9 VAC 5-80-490 I)

Title IV (Phase II Acid Rain) Permit Allowances and Requirements

The Phase II Acid Rain permit is incorporated into this permit. The owners and operators of the source shall comply with the standard requirements and special provisions set forth in the Phase II Acid Rain application.
(9 VAC 5-80-440 and 9 VAC 5-80-490 A.4.a and c, B, C, E, F, M, 0 and P)

149. **Statutory and Regulatory Authorities**

In accordance with the Air Pollution Control Law of Virginia §10.1-1308 and §10.1-1322, the Environmental Protection Agency (EPA) final full approval of the operating permits program (Titles IV and V) published in the federal register December 4, 2001, Volume 66, Number 233, Rules and Regulations, Pages 62961-62967 and effective November 30, 2001, and Title 40, the Code of Federal Regulations §§72.1 through 76.16, the Commonwealth of Virginia Department of Environmental Quality issues this permit pursuant to 9 VAC 5 Chapter 80, Article 3 of the Virginia Regulations for the Control and Abatement of Air Pollution (Federal Operating Permit Article 3).
(9 VAC 5-80-490 B.2)

150. **SO_2 Allowance Allocations and NO_X Requirements for affected units**

Units	I-A, I-B, II-A, and II-B				
Year	2014	2015	2016	2017	2018
SO2 Allowances under Table 2 of 40 CFR 73.10 (tons)	None				
NO_X Limit	Not Applicable				

[1] See Subsection C.1 and C.2.a and C.2.b
[2] See Subsection C.1
(9 VAC 5-80-490 A.4)

Additional Requirements, Notes, Comments, and Justifications.

151. **Additional Requirements:**

Dominion Virginia Power – Gordonsville Power Station shall submit a complete permit application that includes all of the information required under 40 CFR §§72.21 and 72.31 at least 6 months, but no earlier than 18 months, prior to the date of expiration of the existing Phase II Acid Rain permit. EPA forms shall be used.
(9 VAC 5-80-430 C.5)

a. Notes

i. SO_2 allowances may be acquired from other sources in addition to those allocated by U.S. EPA.

ii. No revision to this permit is necessary in order for the owners and operators of this unit to hold additional allowances recorded in accordance with 40 CFR Part 73. The owners and operators of this unit remain obligated to hold sufficient allowances to account for SO_2 emissions from this unit in accordance with 40 CFR 72.9(c)(1).
(9 VAC 5-80-420 C.1 and H.1 and 9 VAC 5-80-490 O)

iii. This unit was not eligible for SO_2 allowance allocation by U.S. EPA under Section 405 of the Clean Air Act and the Acid Rain Program, so none were assigned in 40 CFR Part 73, Table 2.
(9 VAC 5-80-420 C.6)]

b. Justifications

Units I-A, I-B, II-A, and II-B are gas-fired or oil-fired unit and is not subject to NO_X limitations under 40 CFR Part 76.
(9 VAC 5-80-420 D)

Clean Air Interstate Rule (CAIR) Permit

The permittee shall comply with all applicable CAIR requirements (9 VAC 5-140-1010 *et seq.*, 9 VAC 5-140-2010 *et seq.*, 9 VAC 5-140-3010 *et seq.*, 9 VAC 5-140-5010 *et seq.*, and 40 CFR Part 96) by the compliance date in the respective Part of 9 VAC 5 Chapter 140, as contained in the CAIR Permit. The CAIR Permit is attached to this document and expires upon expiration of this Article 3 permit.
(9 VAC 5-80-490, 40 CFR Part 96, and 9 VAC 5 Chapter 140)

State-only Enforceable Requirements

The following terms and conditions are in this permit to implement the requirements of 9 VAC 60, Part II Article 5, (Rule 6-5). Conditions 101 and 102 are enforceable only by the Virginia Air Pollution Control Board. Neither their inclusion in this permit nor any resulting public comment period make these terms federally enforceable. In 9 VAC 5-60-300C of Rule 6-5, several scenarios upon which Rule 6-5 shall not apply to this stationary source. The provisions of 40 CFR 63, Subpart YYYY and 40 CFR 63, Subpart ZZZZ have been promulgated and therefore provide regulations of 40 CFR 63, Subpart YYYY do not apply to the facility and therefore the requirements of Rule 6-5 remain in place. The diesel generator set (ID#IV) is subject to 40 CFR 63, Subpart ZZZZ and therefore not subject to the State Only requirements of Rule 6-5.

152. **State-Only Enforceable Toxics Limit** – Hourly toxic emissions from each CT/HRSG DB unit (excluding CT start-up and transient operation) shall not exceed the limitations specified below:

Formaldehyde	1.1 lb/hr/unit
Benzene	0.08 lb/hr/unit
Nickel	0.07 lb/hr/unit

153. **State-Only Enforceable Toxics Limit** – Toxic pollutant emissions from the combined operation of the CTs (including CT startup and transient operation) and HRSG DBs, shall not exceed the limitations specified below:

Formaldehyde	6.7 tons/yr
Benzene	0.4 tons/yr
Nickel	0.1 tons/yr

Appendix A – The Phase II Acid Rain Permit Application

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

Acid Rain Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31

This submission is: ✖ New ☐ Revised

STEP 1

Identify the source by plant name, State, and ORIS code.

GORDONSVILLE POWER STATION	VA	54844

STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a." For new units, enter the requested information in columns "c" and "d."

a	b	c	d
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	New Units Commence Operation Date	New Units Monitor Certification Deadline
1	Yes	11/21/2003	2/19/2003
2	Yes	11/21/2003	2/19/2003
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

STEP 3

Read the standard requirements

Permit Requirements

(1) The designated representative of each affected source and each affected unit at the source shall:

(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

(2) The owners and operators of each affected source and each affected unit at the source shall:

(i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and

(ii) Have an Acid Rain Permit.

Monitoring Requirements

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.

(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

(1) The owners and operators of each source and each affected unit at the source shall:

(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and

(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.

(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.

(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:

(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or

(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

STEP 3, Cont'd.

Nitrogen Oxides Requirements The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

(1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting
authority:
(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

GORDONSVILLE POWER STATION

Step 3, Cont'd.

Liability, Cont'd.

(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided,* that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Certification

Read the certification statement, sign, and date

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name M. G. Deacon, Jr., Vice President, Fossil & Hydro	
Signature	Date 11/21/03

EPA Form 7610-16 (rev. 10-01)

Acid Rain Program
Instructions for Acid Rain Permit Application (40 CFR 72.30- 72.31)

The Acid Rain Program requires the designated representative to submit an Acid Rain permit application for each source with an affected unit. A complete Certificate of Representation must be received by EPA before the permit application is submitted to the title V permitting authority. A complete Acid Rain permit application, once submitted, is binding on the owners and operators of the affected source and is enforceable in the absence of a permit until the title V permitting authority either issues a permit to the source or disapproves the application.

Please type or print. The alternate designated representative may sign in lieu of the designated representative. If assistance is needed, contact the title V permitting authority.

STEP 1 Use the plant name and ORIS Code listed on the Certificate of Representation for the plant. An ORIS code is a 4 digit number assigned by the Energy Information Agency (EIA) at the U.S. Department of Energy to power plants owned by utilities. If the plant is not owned by a utility but has a 5 digit facility code (also assigned by EIA), use the facility code. If no code has been assigned or if there is uncertainty regarding what the code number is, contact EIA at (202) 287-1730 (for ORIS codes), or (202) 287-1927 (for facility codes).

STEP 2 For column "a," identify each affected unit at the affected source by providing the appropriate unit identification numbers, consistent with the unit identification numbers entered on the Certificate of Representation and with unit identification numbers used in reporting to DOE and/or EIA. For new units without identification numbers, owners and operators may assign such numbers consistent with EIA and DOE requirements.

For columns "c" and "d," enter the commence operation date(s) and monitor certification deadline(s) for new units in accordance with 40 CFR 72.2 and 75.4, respectively.

Submission Deadlines

For new units, an initial Acid Rain permit application must be submitted to the title V permitting authority 24 months before the date the unit commences operation. Acid Rain permit renewal applications must be submitted at least 6 months in advance of the expiration of the acid rain portion of a title V permit, or such longer time as provided for under the title V permitting authority's operating permits regulation.

Submission Instructions

Submit this form to the appropriate title V permitting authority. If you have questions regarding this form, contact your local, State, or EPA Regional Acid Rain contact, or call EPA's Acid Rain Hotline at (202) 564-9620.

Paperwork Burden Estimate

The burden on the public for collecting and reporting information under this request is estimated at 17 hours per response. Send comments regarding this collection of information, including suggestions for reducing the burden, to: Chief, Information Policy Branch (2136), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460; and to: Paperwork Reduction Project (OMB#2060-0258), Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. ***Do not submit forms to these addresses; see the submission instructions above.***

Appendix B – CAIR Permit

Dominion Generation
5000 Dominion Boulevard, Glen Allen, VA 23060

Dominion

Certified Mail – Return Receipt Requested

June 22, 2007

Mr. Terry H. Darton
Air Permit Manager
Fredericksburg Satellite Office
Department of Environmental Quality
806 Westwood Office Park
Fredericksburg, VA 22401

Re: Dominion - Gordonsville Power Station
Initial CAIR Permit Application
DEQ Air Registration No. 40808

Dear Mr. Darton:

Enclosed please find the requested CAIR application documents for Gordonsville Power Station. A completed CAIR permit application and the appropriate pages of the Form 7 are included. The Certificate of Representation was completed on-line via the CAMD website, so a copy of the Certificate of Representation report has been included for your reference.

If you have any questions, please feel free to contact Dawn Garber at (804) 273-3912 or dawn.k.garber@dom.com.

Sincerely,

Cathy C. Taylor

Cathy C. Taylor
Director, Environmental Support

Enclosure: Gordonsville Power Station CAIR permit application

CAIR Permit Application

(for sources covered under a CAIR SIP)

For more information, refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321, and 96.322

This submission is: ☒ New Revised

STEP 1
Identify the source by plant name, State, and ORIS or facility code

Plant Name **Dominion – Gordonsville Power Station** State **VA** ORIS/Facility Code **54844**

STEP 2
Enter the unit ID# for each CAIR unit and indicate to which CAIR programs each unit is subject (by placing an "X" in the column)

Unit ID#	NO_X Annual	SO_2	NO_X Ozone Season
1	X	X	X
2	X	X	X

STEP 3
Read the standard requirements and the certification, enter the name of the CAIR designated representative, and sign and date

Standard Requirements

(a) Permit Requirements.

(1) The CAIR designated representative of each CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) required to have a title V operating permit and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) required to have a title V operating permit at the source shall:

(i) Submit to the permitting authority a complete CAIR permit application under §96.122, §96.222, and §96.322 (as applicable) in accordance with the deadlines specified in §96.121, §96.221, and §96.321 (as applicable); and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) required to have a title V operating permit and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) required to have a title V operating permit at the source shall have a CAIR permit issued by the permitting authority under subpart CC, CCC, and CCCC (as applicable) of 40 CFR part 96 for the source and operate the source and the unit in compliance with such CAIR permit.

(3) Except as provided in subpart II, III, and IIII (as applicable) of 40 CFR part 96, the owners and operators of a CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) that is not otherwise required to have a title V operating permit and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) that is not otherwise required to have a title V operating permit are not required to submit a CAIR permit application, and to have a CAIR permit, under subpart CC, CCC, and CCCC (as applicable) of 40 CFR part 96 for such CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) and such CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable).

Plant Name (from Step 1) **Dominion – Gordonsville Power Station**

STEP 3, continued

(b) Monitoring, reporting, and recordkeeping requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) and each CAIR NO_X unit, CAIR SO_2 unit, and CAIR NO_X Ozone Season unit (as applicable) at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96.

(2) The emissions measurements recorded and reported in accordance with subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96 shall be used to determine compliance by each CAIR NO_X source, CAIR SO_2 source, and CAIR NO_X Ozone Season source (as applicable) with the CAIR NO_X emissions limitation, CAIR SO_2 emissions limitation, and CAIR NO_X Ozone Season emissions limitation (as applicable) under paragraph (c) of §96.106, §96.206, and §96.306 (as applicable).

(c) Nitrogen oxides emissions requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_X source and each CAIR NO_X unit at the source shall hold, in the source's compliance account, CAIR NO_X allowances available for compliance deductions for the control period under §96.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_X units at the source, as determined in accordance with subpart HH of 40 CFR part 96.

(2) A CAIR NO_X unit shall be subject to the requirements under paragraph (c)(1) of §96.106 for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under §96.170(b)(1), (2), or (5) and for each control period thereafter.

(3) A CAIR NO_X allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of §96.106, for a control period in a calendar year before the year for which the CAIR NO_X allowance was allocated.

(4) CAIR NO_X allowances shall be held in, deducted from, or transferred into or among CAIR NO_X Allowance Tracking System accounts in accordance with subparts FF, GG, and II of 40 CFR part 96.

(5) A CAIR NO_X allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_X Annual Trading Program. No provision of the CAIR NO_X Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §96.105 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

(6) A CAIR NO_X allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart EE, FF, GG, or II of 40 CFR part 96, every allocation, transfer, or deduction of a CAIR NO_X allowance to or from a CAIR NO_X source's compliance account is incorporated automatically in any CAIR permit of the source that includes the CAIR NO_X unit.

Sulfur dioxide emission requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO_2 allowances available for compliance deductions for the control period under §96.254(a) and (b) not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO_2 units at the source, as determined in accordance with subpart HHH of 40 CFR part 96.

(2) A CAIR SO_2 unit shall be subject to the requirements under paragraph (c)(1) of §96.206 for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under §96.270(b)(1), (2), or (5) and for each control period thereafter.

(3) A CAIR SO_2 allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of §96.206, for a control period in a calendar year before the year for which the CAIR SO_2 allowance was allocated.

(4) CAIR SO_2 allowances shall be held in, deducted from, or transferred into or among CAIR SO_2 Allowance Tracking System accounts in accordance with subparts FFF, GGG, and III of 40 CFR part 96.

(5) A CAIR SO_2 allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO_2 Trading Program. No provision of the CAIR SO_2 Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §96.205 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

(6) A CAIR SO_2 allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart FFF, GGG, or III of 40 CFR part 96, every allocation, transfer, or deduction of a CAIR SO_2 allowance to or from a CAIR SO_2 source's compliance account is incorporated automatically in any CAIR permit of the source that includes the CAIR SO_2 unit.

Nitrogen oxides ozone season emissions requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_X Ozone Season allowances available for compliance deductions for the control period under §96.354(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_X Ozone Season units at the source, as determined in accordance with subpart HHHH of 40 CFR part 96.

(2) A CAIR NO_X Ozone Season unit shall be subject to the requirements under paragraph (c)(1) of §96.306 for the control period starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under §96.370(b)(1), (2), (3) or (7) and for each control period thereafter.

(3) A CAIR NO_X Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of §96.306, for a control period in a calendar year before the year for which the CAIR NO_X Ozone Season allowance was allocated.

(4) CAIR NO_X Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_X Ozone Season Allowance Tracking System accounts in accordance with subparts FFFF, GGGG, and IIII of 40 CFR part 96.

(5) A CAIR NO_X allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_X Ozone Season Trading Program. No provision of the CAIR NO_X Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §96.305 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

(6) A CAIR NO_X allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subpart EEEE, FFFF, GGGG, or IIII of 40 CFR part 96, every allocation, transfer, or deduction of a CAIR NO_X Ozone Season allowance to or from a CAIR NO_X Ozone Season source's compliance account is incorporated automatically in any CAIR permit of the source.

Plant Name (from Step 1) **Dominion – Gordonsville Power Station**

STEP 3, continued

(d) Excess emissions requirements.

If a CAIR NO_x source emits nitrogen oxides during any control period in excess of the CAIR NO_x emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x allowances required for deduction under §96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

If a CAIR SO_2 source emits sulfur dioxide during any control period in excess of the CAIR SO_2 emissions limitation, then:

(1) The owners and operators of the source and each CAIR SO_2 unit at the source shall surrender the CAIR SO_2 allowances required for deduction under §96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

If a CAIR NO_x Ozone Season source emits nitrogen oxides during any control period in excess of the CAIR NO_x Ozone Season emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO_x Ozone Season unit at the source shall surrender the CAIR NO_x Ozone Season allowances required for deduction under §96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.

(e) Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_x source, CAIR SO_2 source, and CAIR NO_x Ozone Season source (as applicable) and each CAIR NO_x unit, CAIR SO_2 unit, and CAIR NO_x Ozone Season unit (as applicable) at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.

(i) The certificate of representation under §96.113, §96.213, and §96.313 (as applicable) for the CAIR designated representative for the source and each CAIR NO_x unit, CAIR SO_2 unit, and CAIR NO_x Ozone Season unit (as applicable) at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under §96.113, §96.213, and §96.313 (as applicable) changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96, provided that to the extent that subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96 provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable).

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO_x Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable) or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable).

(2) The CAIR designated representative of a CAIR NO_x source, CAIR SO_2 source, and CAIR NO_x Ozone Season source (as applicable) and each CAIR NO_x unit, CAIR SO_2 unit, and CAIR NO_x Ozone Season unit (as applicable) at the source shall submit the reports required under the CAIR NO_x Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable) including those under subparts HH, HHH, and HHHH (as applicable) of 40 CFR part 96.

(f) Liability.

(1) Each CAIR NO_x source, CAIR SO_2 source, and CAIR NO_x Ozone Season source (as applicable) and each NO_x unit, CAIR SO_2 unit, and CAIR NO_x Ozone Season unit (as applicable) shall meet the requirements of the CAIR NO_x Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable).

(2) Any provision of the CAIR NO_x Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable) that applies to a CAIR NO_x source, CAIR SO_2 source, and CAIR NO_x Ozone Season source (as applicable) or the CAIR designated representative of a CAIR NO_x source, CAIR SO_2 source, and CAIR NO_x Ozone Season source (as applicable) shall also apply to the owners and operators of such source and of the CAIR NO_x units, CAIR SO_2 units, and CAIR NO_x Ozone Season units (as applicable) at the source.

(3) Any provision of the CAIR NO_x Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable) that applies to a CAIR NO_x unit, CAIR SO_2 unit, and CAIR NO_x Ozone Season unit (as applicable) or the CAIR designated representative of a CAIR NO_x unit, CAIR SO_2 unit, and CAIR NO_x Ozone Season unit (as applicable) shall also apply to the owners and operators of such unit.

Plant Name (from Step 1) **Dominion – Gordonsville Power Station**

STEP 3, continued

(g) Effect on Other Authorities.
No provision of the CAIR NO_x Annual Trading Program, CAIR SO_2 Trading Program, and CAIR NO_x Ozone Season Trading Program (as applicable), a CAIR permit application, a CAIR permit, or an exemption under § 96.105, §96.205, and §96.305 (as applicable) shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source, CAIR SO_2 source, and CAIR NO_x Ozone Season source (as applicable) or CAIR NO_x unit, CAIR SO_2 unit, and CAIR NO_x Ozone Season unit (as applicable) from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

Certification

I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name J. David Rives	
Signature J. David Rives	Date 06-21-07

Back Print

Reports and Queries

Certificate of Representation

06/04/2007

Facility Information

Facility ID (ORISPL):	54844	**Facility Name:**	Gordonsville Power Station	**State:**	VA		
County:	Louisa	**EPA AIRS ID:**	5110900040	**Latitude:**	38.1253	**Longitude:**	-78.2022

Facility Detail (Mini Detail)

Representative Information

Name: J David Rives
Company: Dominion Resources Services, Inc
Title: VP, Fossil and Hydro
Address: 5000 Dominion Boulevard
1 NE
City: Glen Allen **State:** VA **Zip:** 23060
Phone: (804) 273-3220 **Fax:** (804) 273-3714
Email: J.David.Rives@dom.com

Name: Donald C Craft
Company: Virginia Electric & Power Company
Title: Station Director
Address: 5000 Dominion Boulevard
IN 1NE

City: Glen Allen **State:** VA **Zip:** 23060

Phone: (804) 273-5062 **Fax:** (804) 273-2433

Email: donnie.craft@dom.com

People Detail Layout (Multiple)

Current Representatives

Program	Primary Representative, Effective Date	Alternate Representative, Effective Date	Primary Representative, End Date	Alternate Representative, End Date
ARP	J David Rives, 06/15/2005	Donald C Craft, 06/16/2006		
CAIRNOX	J David Rives, 06/04/2007	Donald C Craft, 06/04/2007		
CAIROS	J David Rives, 06/04/2007	Donald C Craft, 06/04/2007		
CAIRSO2	J David Rives, 06/04/2007	Donald C Craft, 06/04/2007		
NBP	J David Rives, 06/13/2005	Donald C Craft, 06/16/2006		

Basic Table Layout

Units

Unit ID	Program	Unit Classification	Operating Status	Unit Type	Source Category	NAICS Code	Commence Operation Date	Commence Operation Date Code	Comm. Commercial Operation Date	Commence Commercial Operation Date Code	Unit Monitor Certification Begin Date
1	ARP	Phase 2	Operating	CC	Electric Utility	Fossil fuel electric power generation	06/01/1994	A	06/01/1994	A	05/24/2004
1	CAIRNOX	Affected	Operating	CC	Electric Utility	Fossil fuel electric power generation	06/01/1994	A	06/01/1994	A	01/01/2008
1	CAIROS	Affected	Operating	CC	Electric Utility	Fossil fuel electric power generation	06/01/1994	A	06/01/1994	A	05/01/2008
1	CAIRSO2	Affected	Operating	CC	Electric Utility	Fossil fuel electric power generation	06/01/1994	A	06/01/1994	A	01/01/2009
1	NBP	Affected	Operating	CC	Electric	Fossil fuel	06/01/1994	A	06/01/1994	A	05/01/2003

					Utility	electric power generation					
2	ARP	Phase 2	Operating	CC	Electric Utility	Fossil fuel electric power generation	06/01/1994	A	06/01/1994	A	05/24/2004
2	CAIRNOX	Affected	Operating	CC	Electric Utility	Fossil fuel electric power generation	06/01/1994	A	06/01/1994	A	01/01/2008
2	CAIROS	Affected	Operating	CC	Electric Utility	Fossil fuel electric power generation	06/01/1994	A	06/01/1994	A	05/01/2008
2	CAIRSO2	Affected	Operating	CC	Electric Utility	Fossil fuel electric power generation	06/01/1994	A	06/01/1994	A	01/01/2009
2	NBP	Affected	Operating	CC	Electric Utility	Fossil fuel electric power generation	06/01/1994	A	06/01/1994	A	05/01/2003

Basic Table Layout

Generator Information

Generator ID	Unit ID	ARP Nameplate Capacity	CAIR Nameplate Capacity	Effective Date
GOR1	1	97.2		06/04/2007
GOR2	2	97.2		06/04/2007

Basic Table Layout

Current Owners and Operators

Unit ID	Owner/Operator Company Name	Type	Effective Date	End Date
1	Dominion Generation	Operator	06/15/2005	
1	Virginia Electric & Power Company	Owner	11/24/2003	
2	Dominion Generation	Operator	06/15/2005	
2	Virginia Electric & Power Company	Owner	11/24/2003	

Basic Table Layout

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality

General Information
CHECK ALL FORMS THAT APPLY AND LIST ALL ATTACHED DOCUMENTS.

__ MAP AND LOCALITIES LIST (Information), Pages iii-vi
__ CONFIDENTIAL INFORMATION, Page vii-viii
__ FORMULA-BASED HAZARDOUS AIR POLLUTANT INFORMATION, Page ix
__ HAZARDOUS AIR POLLUTANT LIST (Information), Pages xi-xii
__ REQUEST FOR LOCAL GOVERNMENT CERTIFICATION FORM, Page xiii
_1_ CONTENTS AND DOCUMENT CERTIFICATION, Page 1
_1_ GENERAL INFORMATION, Page 2
_1_ GENERAL INFORMATION (continued), Page 3
__ FUEL-BURNING EQUIPMENT, Page 4
__ PROCESSING, Page 5
__ INKS, COATINGS, STAINS, AND ADHESIVES, Page 6
__ INCINERATORS, Page 7
__ VOLATILE ORGANIC COMPOUND/PETROLEUM STORAGE TANKS, Page 8
__ VOLATILE ORGANIC COMPOUND/PETROLEUM STORAGE TANKS - CONTINUED, Page 9
__ LOADING RACKS AND OIL-WATER SEPARATORS, Page 10
__ STACK PARAMETERS AND FUEL DATA, Page 11
__ AIR POLLUTION CONTROL AND MONITORING EQUIPMENT, PAGE 12
__ AIR POLLUTION CONTROL/SUPPLEMENTAL INFORMATION, PAGE 13
__ PROPOSED MAXIMUM CRITERIA POLLUTANT EMISSIONS, Page 14
__ PAST ACTUAL ANNUAL CRITERIA POLLUTANT EMISSIONS, Page 16
__ TOXIC OR HAP EMISSIONS, Page 16
__ OTHER REGULATED EMISSIONS, Page 17
__ OPERATING PERIODS, Page 18

LIST ATTACHED DOCUMENTS

__ MAP of SITE LOCATION
__ FACILITY SITE PLAN
__ PROCESS FLOW DIAGRAM/SCHEMATIC
__ MSDS or CPDS SHEETS
__ ESTIMATED EMISSIONS CALCULATIONS
__ STACK TESTS
__ AIR MODEL DATA
_____
_____
_____
_____
_____

Note added form sheets above; also indicate the number of copies of each form in blank provided.

DOCUMENT CERTIFICATION FORM
(see other side for instructions)

I certify under penalty of law that this document and all attachments [as noted above] were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I certify that I understand that the existence of a permit under [Article 6 of the Regulations] does not shield the source from potential enforcement of any regulation of the board governing the major NSR program and does not relieve the source of the responsibility to comply with any applicable provision of the major NSR regulations.

SIGNATURE: _____ DATE: 6-21-07

NAME: J. David Rives

TITLE: VP Fossil & Hydro REGISTRATION

COMPANY: Dominion - Gordonsville Power Station NUMBER: 40808

References: Virginia Regulations for the Control and Abatement of Air Pollution (Regulations), 9 VAC 5-20-230B and 9 VAC 5-80-1140E. See reverse of this form for instructions.

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR PERMIT APPLICATION GENERAL INFORMATION

PERSON COMPLETING FORM	DATE	REGISTRATION NUMBER
Dawn Garber	June 2007	40808

REASON(S) FOR SUBMISSION (Check all that apply):

[X] **STATE OPERATING PERMIT** — THIS PERMIT IS APPLIED FOR PURSUANT TO PROVISIONS OF THE VIRGINIA ADMINISTRATIVE CODE, 9 VAC 5 Chapter 80, Article 5 (SOP)

[ ] **NEW (Greenfield) SOURCE**
[ ] **MODIFICATION of a SOURCE**
[ ] **RELOCATION of a SOURCE**

THIS PERMIT IS APPLIED FOR PURSUANT TO THE FOLLOWING PROVISION(S) OF THE VIRGINIA ADMINISTRATIVE CODE:
- [ ] 9 VAC 5 Chapter 80, Art. 6 (MINOR SOURCES)
- [ ] 9 VAC 5 Chapter 80, Art. 8 (PSD MAJOR SOURCES)
- [ ] 9 VAC 5 Chapter 80, Art. 9 (NON-ATTAINMENT MAJOR SOURCES)

[ ] **Non-Binding Letter of EXEMPTION**

[ ] **AMENDMENT to a Permit dated:** _____ **Permit type:** [ ] SOP (Art.5) [ ] NSR (Art.6)

Amendment Type:
- [ ] Administrative Amendment
- [ ] Minor Amendment
- [ ] Significant Amendment

THIS AMENDMENT IS REQUESTED PURSUANT TO THE PROVISIONS OF:
- [ ] 9 VAC 5-80-970 (SOP Adm.)
- [ ] 9 VAC 5-80-980 (SOP Minor)
- [ ] 9 VAC 5-80-990 (SOP Sig.)
- [ ] 9 VAC 5-80-1270 (NSR Adm.)
- [ ] 9 VAC 5-80-1280 (NSR Minor)
- [ ] 9 VAC 5-80-1290 (NSR. Sig.)

Complete Pages 1, 2, and 3 and refer to the above checked provisions for additional information requirements. Form 7 pages may be used to satisfy those requirements.

[ ] **Notification of Change in Ownership - Effective Date:** _____

[ ] **Notification of Facility Name Change - Effective Date:** _____

[ ] **Notification of Owner Name Change - Effective Date:** _____

[ ] **Other (Specify):** _____

COMPANY AND DIVISION NAME:
Dominion – Gordonsville Power Station

MAILING ADDRESS:
5000 Dominion Boulevard, Glen Allen, VA 23060

TELEPHONE NUMBER:	NUMBER OF EMPLOYEES AT SITE:	PROPERTY AREA AT SITE:
540-832-3432		

EXACT SOURCE LOCATION - INCLUDE NAME OF CITY (COUNTY) AND FULL STREET ADDRESS OR DIRECTIONS:
115 Red Hill Rd, Gordonsville, VA 22942

PERSON TO CONTACT ON AIR POLLUTION MATTERS - NAME AND TITLE:	PHONE NUMBER: 804-273-2929
Cathy C. Taylor Director, Environmental Support	FAX NUMBER: 804-273-3410
	E-MAIL ADDRESS: Cathy.C.Taylor@dom.com

[X] Please check here if you obtained this form from the DEQ website.

FOR OFFICIAL USE ONLY

COUNTY CODE:	PLANT ID NUMBER:	LAT/LONG:

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR PERMIT APPLICATION GENERAL INFORMATION (continued)

COMPANY NAME	DATE	REGISTRATION NUMBER
Dominion – Gordonsville Power Station	June 2007	40808

FOR PORTABLE PLANTS:

IS THIS FACILITY DESIGNED TO BE PORTABLE? ☐ YES ☒ NO

- IF YES, IS THIS FACILITY ALREADY PERMITTED AS A PORTABLE PLANT? ☐ YES ☐ NO PERMIT DATE: _____

IF NOT PERMITTED, IS THIS AN APPLICATION TO BE PERMITTED AS A PORTABLE PLANT? ☐ YES ☐ NO

IF PERMITTED AS A PORTABLE FACILITY, IS THIS A NOTIFICATION OF RELOCATION? ☐ YES ☐ NO

- DESCRIBE THE NEW LOCATION OR ADDRESS (INCLUDE A SITE MAP): _____

- WILL THE PORTABLE FACILITY BE CO-LOCATED WITH ANOTHER SOURCE? ☐ YES ☐ NO REG. NO.: _____

- WILL THE PORTABLE FACILITY BE MODIFIED OR RECONSTRUCTED AS A RESULT OF THE RELOCATION? ☐ YES ☐ NO
- WILL THERE BE ANY NEW EMISSIONS OTHER THAN THOSE ASSOCIATED WITH THE RELOCATION? ☐ YES ☐ NO
- IS THE FACILITY SUITABLE FOR THE AREA TO WHICH IT WILL BE LOCATED? (ATTACH DOCUMENTATION.) ☐ YES ☐ NO

DESCRIBE THE PRODUCTS MANUFACTURED AND/OR SERVICES PERFORMED AT THIS FACILITY:

Generation of electricity for sale

LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE(S) FOR THE FACILITY:

4911

LIST THE NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS) CODE(S) FOR THE FACILITY:

221112

PLEASE LIST ALL THE FACILITIES IN VIRGINIA UNDER COMMON OWNERSHIP OR CONTROL BY THE OWNER OF THIS FACILITY:

Numerous facilities throughout the eastern 2/3 of Virginia

MILESTONES. This section is to be completed if the permit application includes a new emissions unit or modification to existing operations.

MILESTONES*	STARTING DATE	ESTIMATED COMPLETION DATE
New equipment installation		
Modification of existing process or equipment		
Start-up dates		

*For new or modified installations to be constructed in phased schedule, give construction/installation starting and completion date for each phase.

Appendix C – Definition of Start-up and Transient Operations

APPENDIX C

DEFINITION OF COMBUSTION TURBINE START-UP AND TRANSIENT CONDITIONS

Start-Up Conditions

(1) **Normal Start-Up:** Start-up begins when flame is detected. Start-up ends one hour after ammonia injection begins. The start-up period shall not exceed six hours. For situations where malfunctions occur during start-up, the six hours will be exceeded and excess emissions that occur after six hours will be considered exceedances.

(2) **Full Speed, No Load:** The start-up definition shall include full speed, no load testing which is usually conducted weekly for reliability purposes. Full speed, no load testing commences when flame is detected and is distinguished from a normal start-up by the fact that the combustion turbine output (MW) is zero. Full speed, no load is completed at flameout. Full speed, no load start-ups occur for less than sixty minutes in duration.

(3) **Low Load Emergency (LLE) Mode:** During grid restoration, the turbines will operate an extended period of time at a low load which would be equivalent to the load observed during a normal startup. LLE mode will take place firing natural gas only. A test of LLE mode may be successfully completed once each calendar year. A successful test is considered to be sustained generation of the turbines while operating in LLE mode. The turbines may be operated in LLE mode during a Pennsylvania-New Jersey-Maryland Interconnection, LLC (PJM) Independent System Operator's (ISO) declared emergency. (9 VAC 5-80-1180, Virginia Code 10.1 – 1307.02, and Virginia Code 10.1-1307.3 A.5)

Transient Conditions (occurs sixty minutes or less in duration)

(1) **Shutdown**: Begins when either the operator initiates a STOP command or if the combustion turbine load has decreased below 85 percent of rated output and within thirty minutes of a STOP command has been initiated. In both cases, the turbine will continue to decrease load until flameout.

(2) **Fuel Switch:** Lower load below 50 MW range, change fuel and raise load again. Verification by records indicating both natural gas and distillate fuel oil flow within sixty minutes of each other.

(3) **Power Augmentation:** A mode of operation that operates the CTs on natural gas while injecting water to increase the power output of the turbine. While in this operation the premix burners are not used. In order to return the units to premix steady state; load must be lowered below the 50 MW range, turn the water injection off then increase load to reset control logic and enter pre-mix mode. Verification is by records indicating both water and natural gas flow.

Appendix D – Data Substitution Emission Factors

APPENDIX D

NO_X, SO_2, and CO Data Substitution Emission Factors and VOC and PM-10 Emission Factors For Use In Annual Facility-wide Emission Calculations

Operating Mode Symbol	Emission Rate (lbs/hr)	Operating Mode Description
CT_{FO}	53 lb SO_2 /hr 43.5 lb CO/hr 52 lb NO_X (as NO_2)/hr 10 lb PM-10/hr 9.5 lb VOC/hr	Operating hours firing distillate fuel oil in the CT (Emiss.Unit ID#s I-A and II-A), while no duct burner supplementary firing is used
CT_{FO} plus $HRSG/SFL_{FO}$	60 lb SO_2 /hr 58.5 lb CO/hr 58 lb NO_X (as NO_2)/hr 12 lb PM-10/hr 17.5 lb VOC/hr	Operating hours firing distillate fuel oil while HRSG duct burner (Emiss.Unit ID#s I-B and II-B) is supplementary firing low (SFL) at or less than 124.9 MMBtu/hr.
CT_{FO} plus $HRSG/SFH_{FO}$	62 lb SO_2 /hr 63.5 lb CO/hr 60 lb NO_X (as NO_2)/hr 13 lb PM-10/hr 19.5 lb VOC/hr	Operating hours firing distillate fuel oil while HRSG duct burner is supplementary firing high (SFH) at 125.0 through 166.6 MMBtu/hr.
ST CT_{FO}	53 lb SO_2 /hr 208 lb CO/hr 259 lb NO_X (as NO_2)/hr 47.8 lb PM-10/hr 45.4 lb VOC/hr	CT operating hours firing distillate fuel oil during start-up. Appendix C contains the definition of start-up.
TR CT_{FO}	53 lb SO_2 /hr 171 lb CO/hr 86 lb NO_X (as NO_2)/hr 39.3 lb PM-10/hr 37.3 lb VOC/hr	CT operating hours firing distillate fuel oil during transient operations (shutdown, fuel switching, or power augmentation). Appendix C contains the definitions of transient operations.
FSNL CT_{FO}	53 lb SO_2 /hr 282 lb CO/hr 31.5 lb NO_X (as NO_2)/hr 64.8 lb PM-10/hr 61.6 lb VOC/hr	CT operating hours firing distillate fuel oil during full speed/no load (FSNL). Appendix C contains the definition of FSNL.
CT_{NG}	2.1 lb SO_2 /hr 33 lb CO/hr 39.5 lb NO_X (as NO_2)/hr 5 lb PM-10/hr 10.25 lb VOC/hr	Operating hours firing natural gas in the CT, while no duct burner supplementary firing is used.
CT_{NG} plus $HRSG/SFL_{NG}$	2.2 lb SO_2 /hr 48 lb CO/hr 44.25 lb NO_X (as NO_2)/hr 7 lb PM-10/hr 18.25 lb VOC/hr	Operating hours firing natural gas while the HRSG duct burner is supplementary firing low at or less than 124.9 MMBtu/hr
CT_{NG} plus $HRSG/SFH_{NG}$	2.3 lb SO_2 /hr 54 lb CO/hr 45.5 lb NO_X (as NO_2)/hr	Operating hours firing natural gas while the HRSG duct burner is supplementary firing high at 125.0 through 174.7 MMBtu/hr.

	8 lb PM-10/hr 21.25 lb VOC/hr	
LLE CT_{NG}	2.1 lb SO_2 /hr 461 lb CO/hr 88 lb NO_X (as NO_2)/hr 69.8 lb PM-10/hr 143.2 lb VOC/hr	CT operating hours firing natural gas during LLE operating mode. Appendix C contains the definition of LLE.
ST CT_{NG}	2.1 lb SO_2 /hr 461 lb CO/hr 88 lb NO_X (as NO_2)/hr 69.8 lb PM-10/hr 143.2 lb VOC/hr	CT operating hours firing natural gas during startup. Appendix C contains the definition of startup.
TR CT_{NG}	2.1 lb SO_2 /hr 201 lb CO/hr 86 lb NO_X (as NO_2)/hr 30.5 lb PM-10/hr 62.4 lb VOC/hr	CT operating hours firing natural gas during transient operations (shutdown, fuel switching, or power augmentation). Appendix C contains the definitions of transient operations
FSNL CT_{NG}	2.1 lb SO_2 /hr 460 lb CO/hr 16 lb NO_X (as NO_2)/hr 69.7 lb PM-10/hr 142.9 lb VOC/hr	CT operating hours firing natural gas during full speed/no load. Appendix C contains the definition of FSNL.

Determination of Emission Unit Operating Mode For A Given Hour

If two or more operating modes are used on the same CT or CT/HRSG DB (Emiss.Unit ID#s I-A, I-B, and II-A, II-B) during a one hour period, the largest of the pollutant specific emission rates among the operating modes being evaluated shall be used for data substitution and emissions calculations during that one hour period.

If one or more 15 minute periods during an hour are identified as CT start-up, then the entire hour shall be considered one hour of CT start-up for the purposes of estimating emissions. If one or more 15 minute periods in an hour are identified as CT transient operation, then the entire hour shall be considered one hour of CT transient operation for the purposes of estimating emissions. If a CT transient operation occurs during the same hour as a CT start-up operation, then the entire hour shall be considered CT start-up.

Appendix E - Applicability Determination Index (ADI) Water–to-fuel ratio exemption

U.S. Environmental Protection Agency
Applicability Determination Index

Control Number: 0200080

Category: NSPS
EPA Office: Region 1
Date: 10/11/2002
Title: Custom Testing & CEMS QA/QC Approval
Recipient: Shawn Konary
Author: Ken Moraff

Subparts: Part 60, GG, Stationary Gas Turbines

References: 60.8(b)(4)

Abstract:

Q1: Will EPA allow Mirant Kendall to measure measure NOx, SO2, and PM for the new natural gas unit #4 at the HRSG outlet instead of upstream and downstream of the duct burner during the Subpart GG and Subpart Da initial performance test? Can Kendall use method 20 instead of method 7E for the initial performance test?

Q2: Will EPA allow a custom CEMS QA/QC regimen?

A1: Yes, EPA has determined that in these specific cases the proposed alternatives to the test methods and sampling points will continue to ensure compliance with the emission limits.

A2: Yes, EPA has determined that in these specific cases the proposed alternative to the CEMS QA/QC requirements will continue to ensure compliance with the emission limits.

Letter:

October 11, 2002

Shawn Konary, Director
Department of Environmental Affairs
Mirant Kendall, LLC
265 First Street
Cambridge, Massachusetts 02142-1214

The CTG is subject to 40 CFR Part 60, Subpart GG: Standards of Performance for Stationary Gas Turbines. The duct burner is subject to 40 CFR Part 60, Subpart Da. The facility is also subject to 40 CFR Part 75.

With this letter, EPA is approving the following custom fuel monitoring schedule for the new CTG / HRSG configuration at Kendall Station.

In lieu of the daily fuel analysis required under 40 CFR Part 60, Subpart GG, when firing pipeline quality natural gas:

1. No monitoring of fuel nitrogen is required.

2. Sulfur monitoring shall be conducted using the methods found in 40 CFR Part 75, Appendix D, Section 2.3.3.1.2, on the following schedule:

a. Twice monthly for the first six months of operation (after receipt of this letter), with no two monitoring dates within 10 days of each other;

b. If the average sulfur content from the 12 sulfur fuel content test results (distributed over the first six months) is less than 50% of the sulfur limit (as expressed in 40 CFR Part 60, Subpart GG), and the sulfur dioxide emissions (calculated using the sulfur fuel content of the past 6 months) represent compliance with the sulfur dioxide emissions limits in 40 CFR 60.333, then Mirant Kendall may reduce monitoring frequency to twice per year, during the first and third calendar quarters.

3. Records of sample analyses, sample dates, and fuel supply shall be kept to demonstrate compliance with this monitoring schedule and shall be retained for a period of five years. Such records shall be made available for inspection by personnel of Federal and State air pollution control agencies.

In lieu of the daily fuel analysis required under 40 CFR Part 60, Subpart GG, when firing distillate oil:

4. No fuel-nitrogen content monitoring or water-to-fuel injection ratio monitoring is required as long as Mirant Kendall maintains NOx CEMS in accordance with 40 CFR Part 75.

5. In lieu of daily monitoring of the oil for sulfur content, Mirant Kendall will sample and analyze the oil to determine the sulfur content in accordance with the procedures and sampling frequency outlined in 40 CFR Part 75, Appendix D.

Continuous Emissions Monitoring Quality Assurance and Quality Control Procedures: The new Mirant Kendall CTG / HRSG will be equipped with a NOx monitor with a range from 0 to 10 ppm. Your letter requested alternative NOx monitoring provisions under 40 CFR 60.13(i) for these low range monitors. EPA is approving the following alternative NOx CEMS calibration and quality assurance / quality control provisions.

6. The following alternate approvals apply only to the low monitoring range (0-10 ppm) NOx monitor, unless otherwise noted.

a. 40 CFR Part 60 includes a 24-hour calibration drift requirement of 2.5% of monitor span. Mirant Kendall may consider a calibration drift of less than or equal to 5% of span (0.5 ppm) acceptable.

b. Mirant Kendall may perform the 7-day drift test on 7 consecutive unit operating days rather than on seven consecutive calendar days. This item applies to all emissions monitors at the facility.

c. EPA is approving an alternate relative accuracy requirement of 0.5 ppmvd of NOx, corrected to 15% O2. For lb/MMBtu NOx emission limits, EPA is approving an alternative relative accuracy of 0.002 lb/MMBtu. For lb/hr NOx emission limits, EPA is approving a relative accuracy equal to:

NOx lb/hr relative accuracy = 0.002 lb/MMBtu * A_MMBtu/hr

Where A_MMBtu/hr = the arithmetic average MMBtu/hr determined by the data acquisition and handling system (DAHS) over the course of the relative accuracy test audit (RATA), for every hour during which a RATA run was performed.

EPA is approving an alternate relative accuracy requirement of 0.5 ppmvd of CO, corrected to 15% O2. For lb/MMBtu CO emission limits, EPA is approving an alternative relative accuracy of 0.001 lb/MMBtu. For lb/hr CO emission limits, EPA is approving a relative accuracy equal to:

CO lb/hr relative accuracy = 0.001 lb/MMBtu * A_MMBtu/hr

d. Mirant Kendall may substitute the requirements of the quarterly linearity test, required under 40 CFR Part 75 Appendices A and B, in lieu of the requirement to perform quarterly cylinder gas audits as specified in 40 CFR Part 60 Appendix F.

7. Mirant Kendall may omit a cylinder gas audit (CGA) for CO and NH3 in any quarter during which the unit is operated less than 168 hours, except that a CGA must be done for each pollutant (CO and NH3) at least once every four quarters regardless of hours of operation.

8. EPA is approving the following data validation methods:

a. Mirant Kendall may perform CEMS data validation and data reduction in accordance with 40 CFR Section 75.10(d)(1) procedures for the purposes of showing compliance with the 40 CFR Part 60, Subpart GG NOx standards and the PSD permit CO and NH3 standards, except that no data substitution shall be permitted.

b. Mirant Kendall may apply the O2 diluent cap in accordance with 40 CFR Part 75, Appendix F, Section 3, for determination of lb/MMBtu and ppmvd (at 15% O2) emission rates.

c. Mirant Kendall may designate an hour in which fuel is fired for any period as an "operating hour" in accordance with 40 CFR Section 72.2.

Initial Performance Test Methods and Procedures: EPA approves the following requests for modification of the initial performance test methods for duct burner NOx limits at 40 CFR Part 60, Subpart Da (i.e. Sec. 60.46a(k)(1) and Sec. 60.8(b)):

9. Measurement of combined turbine and duct burner NOx at the HRSG outlet instead of measuring upstream and downstream of the duct burner. The alternative method is appropriate in this case due to the difficulty of isolating the emission contribution of the duct burner from the emission contribution of the gas turbine. This approved alternative testing method conservatively assumes that the total measured NOx emissions are attributable to the duct burner alone;

10. Use of Method 20 or Method 7E (both found in 40 CFR Part 60, Appendix A) for measuring NOx concentrations during stack test. 40 CFR 60.46a(k)(1)(ii) requires Method 7E for determining NOx concentrations. In this case, the measurement differences between Methods 7E and 20 will not affect the compliance status under Subpart Da, because Mirant Kendall will also be complying with the federally enforceable Massachusetts permit limit which is more restrictive than Subpart Da;

11. Determination of duct burner MMBtu/hr firing rate by using the fuel flow monitoring system certified per 40 CFR Part 75, Appendix D, instead of by testing the stack flow rate; and

12. Calculation of the duct burner MW production using the following equation:

GFDB * HV / (eff * 1000)

where GFDB = gas flow to the duct burner in hscf/hr HV = heating value of the gas in Btu/hscf eff = 10,000 Btu/kWh 1000 = conversion factor: 1000 kW = 1 MW.

EPA approves the following requests for modification of the initial performance test methods for duct burner SO2 and PM emission limits at 40 CFR Part 60, Subpart Da (i.e. Sec. 60.48a(f) and Sec. 60.8(b)):

13. Measurement of SO2 at the HRSG outlet instead of upstream and downstream of the duct burner or conduct fuel testing for sulfur in order to satisfy the SO2 testing requirement of Subpart Da for the duct burner; and

14. Measurement of PM at the HRSG outlet instead of upstream and downstream of the duct burner.

EPA may alter this approval in the future, in accordance with applicable regulations, if the agency determines that it is warranted.

If you have any questions regarding this approval, please contact Rebecca L. Kurowski, at 617-918-1863 or Robin R. Segall, at 919-541-0893.

Sincerely,

Ken Moraff, Enforcement Manager
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